CDP-502ESII/552ESDII /620ESII/650ESDII

SERVICE MANUAL

Refer to RM-D302/D502 Service Manual issued separately for information of the remote controller supplied with this set.

CDP-620ESII/650ESDII:

US Model
Canadian Model

CDP-502ESII/552ESDII:

AEP Model
UK Model
E Model

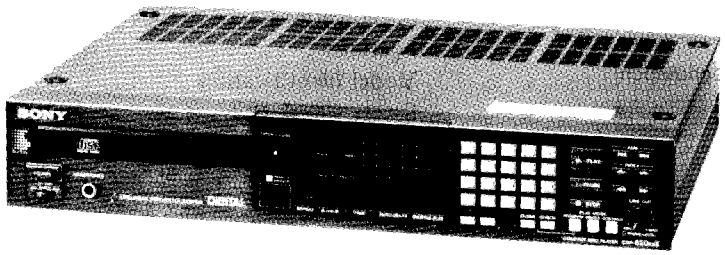

Photo: CDP-620ESII

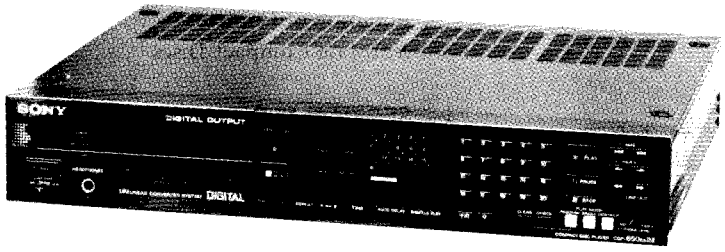

Photo: CDP-650ESDII

SPECIFICATIONS

System	Compact disc digital audio system
Disc	Compact disc
Laser	Semiconductor laser (λ = 780 nm)
Laser output	Max. 0.4 mW *
	* This output is the value measured at a distance of about 1.6 mm from the objective lens surface on the Optical Pick-up Block.
Spindle speed	200 r.p.m. to 500 r.p.m. (CLV)
Scan velocity	1.2 - 1.4 m/sec.
Error correction	Sony Super Strategy Cross Interleave Reed Solomon Code
Number of channels	2
D-A conversion	16-bit linear
Frequency responce	2 - 20,000 Hz ± 0.5 dB
Harmonic distortion	Less than 0.0025% (1 kHz)
Dynamic range	More than 96 dB
Channel separation	More than 95 dB (1 kHz)
Wow and flutter	Below measurable limit

Outputs	Line outputs
	FIXED (phono jacks)
	Output level 2 V rms (at MSB)
	Load impedance over 10 kilohms
	VARIABLE (phone jacks)
	Max. output level 2 V rms (at MSB)
	Load impedance over 50 kilohms
	Headphones (stereo phone jack)
	28 mW at 32 ohms
	CDP-552ESDII/650ESDII:
	DIGITAL OUT (phono jacks)
	Max. output level 0.5 Vp-p
	Load impedance 75 ohms

— Continued on page 2 —

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MICROFILM

COMPACT DISK PLAYER

SONY®

AUD

Disc

Track pitch 1.6 μm
Sampling frequency
44.1 kHz
Quantization 16 bit linear quantizing/channel
Modulation system
EFM
Transfer rate 2.03 Mbit/sec. (before modulation)

General

Power requirements
US/Canadian model: 120 V AC, 60 Hz
AEP model: 220 V ac (or 240 V ac adjustable by Sony personnel), 50/60 Hz
UK model: 240 V ac (or 220 V ac adjustable by Sony personnel), 50 Hz
E model: 110, 120, 220 or 240 V adjustable, 50/60 Hz
Power consumption
16 W
Dimensions CDP-502ESII/620ESII:
Approx. 430 x 85 x 335 mm (w/h/d)
(17 x 3⅜ x 13¼ inches)
including projecting parts and controls
CDP-552ESDII/650ESDII:
Approx. 430 x 85 x 365 mm (w/h/d)
(17 x 3⅜ x 14⅜ inches)
including projecting parts and controls
Weight CDP-502ESII/620ESII:
Approx. 8.5 kg (18 lbs, 12 oz), net
CDP-552ESDII/650ESDII:
Approx. 9.3 kg (20 lbs, 8 oz), net

FEATURES

- High performance and high fidelity.
- Direct digital signal output provides for the highest possible sound quality, when this unit is connected to an external D/A converter. (CDP-552ESDII/650ESDII)
- Feather-touch function buttons for direct mode change.
- Linear motor for quick selection search.
- A variety of playing modes: CONTINUE mode, PROGRAM mode and SINGLE mode.
- Index function for quick location of the part you want.
- Repeat function for one selection, the whole disc, programmed selections, selections with random order or a particular portion.
- Auto delay function allows you to delay the playback of the first selection 2 seconds.

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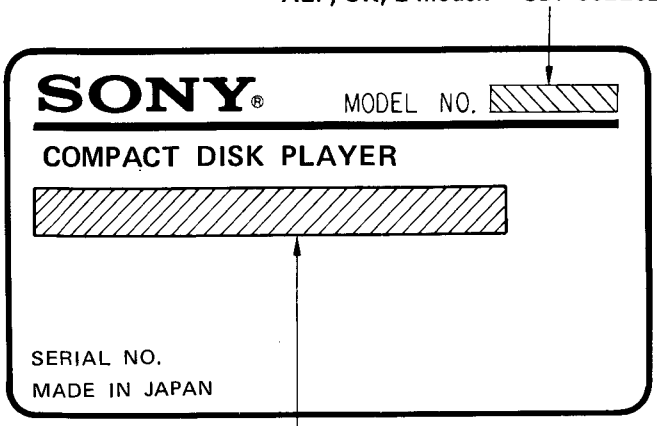
MODEL IDENTIFICATION

– Specification Labels –

CDP-502ESII/620ESII:

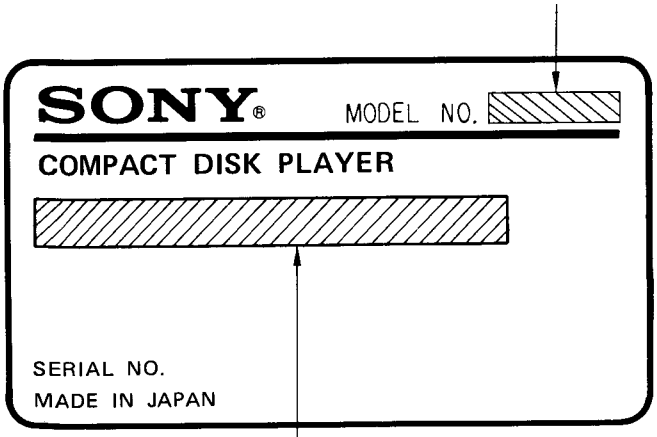
US, Canadian model: CDP-620ESII
AEP, UK, E model: CDP-502ESII



US, Canadian model: AC: 120 V ~ 60 Hz 16 W
AEP model: AC: 220 V ~ 50/60 Hz 16 W
UK model: AC: 240 V ~ 50/60 Hz 16 W
E model: AC: 110, 120, 220, 240 V ~ 50/60 Hz 16 W

CDP-552ESDII/650ESDII:

US, Canadian model: CDP-650ESDII
AEP, UK, E model: CDP-552ESDII



US, Canadian model: AC: 120 V ~ 60 Hz 16 W
AEP model: AC: 220 V ~ 50/60 Hz 16 W
UK model: AC: 240 V ~ 50/60 Hz 16 W
E model: AC: 110, 120, 220, 240 V ~ 50/60 Hz 16 W

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

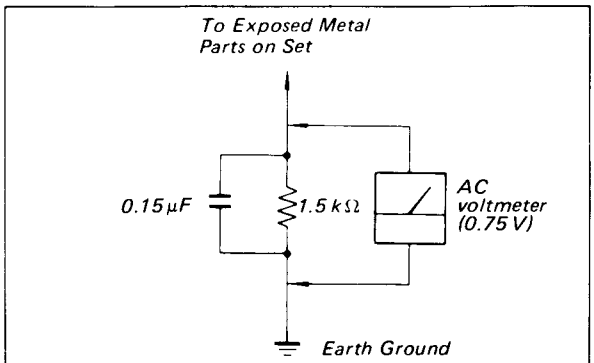


Fig. A. Using an AC voltmeter to check AC leakage.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING !!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 25 cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

CAUTION:

The use of optical instrument with this product will increase eye hazard.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

1. Laser Diode Properties
   - Material: GaAlAs
   - Wavelength: 780 nm
   - Emission Duration: continuous
   - Laser Output: max. 0.4 mW*
     * This output is the value measured at a distance of about 1.6 mm from the objective lens surface on the Optical Pick-up Block.
   - Classification: Class IIIb
2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optiocal Pick-up Block (including APC borad).

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

ADVARSEL!!

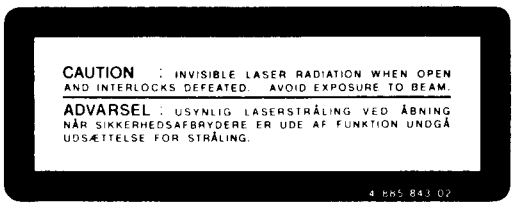
Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 25 cm fra den optiske pick-up.

1. Laser-didoe data
   - Materiale: GaAlAs
   - Bølgelængde: 780 nm
   - Udstråling: Kontinuerlig
   - Laseroutput: Max. 0,4 mW*
     * Målt i 1,6 mm afstand fra overfladen af objektivlinsen på den optiske pick-up enhed.
   - Klassifikation: Klasse IIIb.
2. Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laserdioden) bryder ned, skal hele den optiske pick-up enhed (incl. APC printkortet) udskiftes.

LASER ADVARSEL MÆRKNING

Følgende mærkning findes indvendig i apparatet:

1. Advarsel Mærkning


CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅLING.
4 665 843 02

VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkymätöntä) silmille vaarallista lasersateilyä.

– SERVICING NOTE –

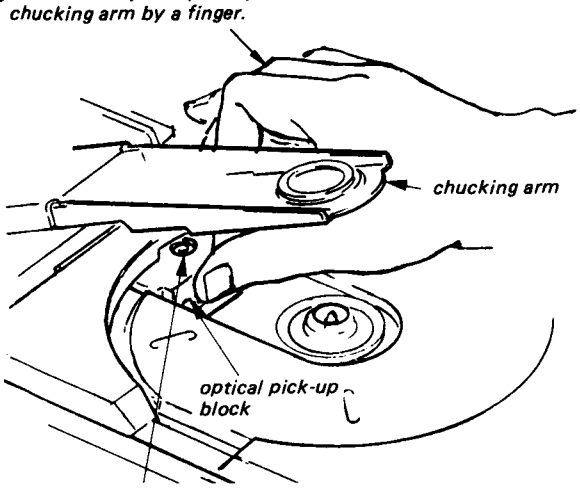
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 25 cm away from the objective lens.

LASER DIODE AND FOCUS SERCH OPERATION CHECK

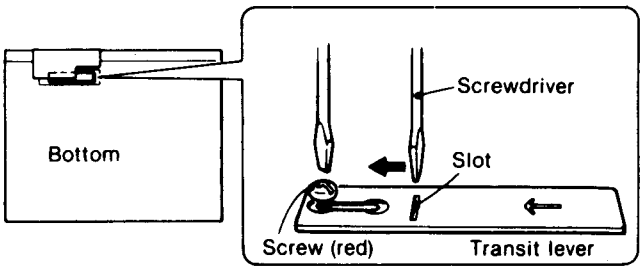
1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation at right is performed while observing the objective lens.

❶ *Hold down optical pick-up block and chucking arm by a finger.*



❷ *Confirm that laser beam is spread.*
❸ *Up and down motion of the objective lens. (3 times)*

A transit lever is provided at the bottom of the unit to protect the optical system against shock during transportation. Before starting repairing, make following procedures.

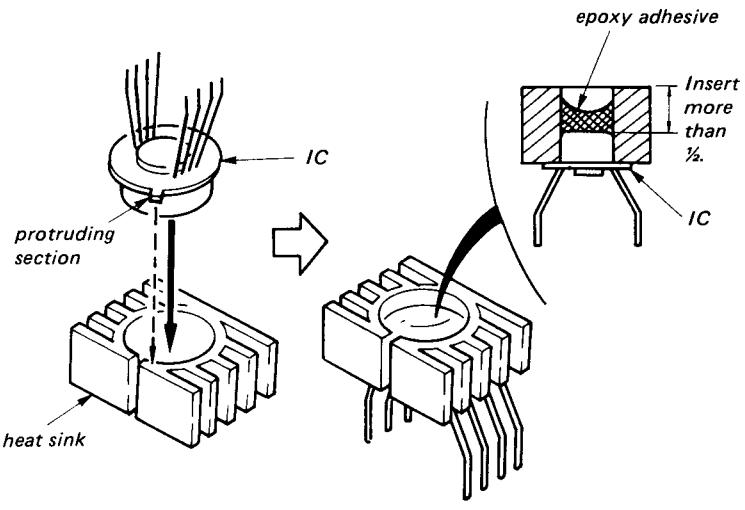


1 Loosen the screw (red) with the screwdriver.
2 Insert the screwdriver into the slot in the lever and move it in the direction of the arrow until it stops.
3 Tighten the screw.

NOTES ON IC REPLACEMENT

- When replacing IC401, 501, first clean the IC head and the inside of the heat sink with alcohol, then mount the heat sink and fill the heat sink indented portion with an epoxy type adhesive*, as shown in the illustration below.

* Epoxy type adhesive: Sony bond SC1000 or other quick drying 2 liquid compound.



– CAUTION FOR ELECTROSTATIC BREAKDOWN –

NOTES ON HANDLING THE BASE UNIT (BU-1C)

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

The printed matter below is included in the repair parts. During repair, use the procedure in the printed matter.

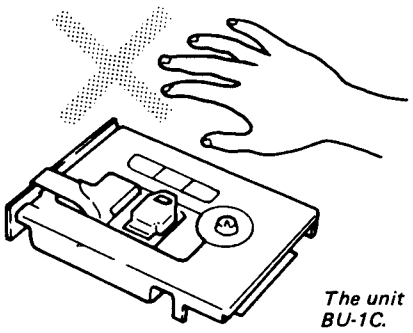
The following method is an example for reference purposes:

1. Place a conductive sheet on the workbench. (The black sheet used as repair parts wrapping).
2. Place the set on the conductive sheet so that the chassis touches the sheet. (This makes it the same potential as the conductive sheet).
3. Place your hands on the conductive sheet. (This makes them the same potential as the sheet).
4. Remove the optical pick-up block.
5. Perfrom work on top of the conductive sheet. Be careful that clothing does not touch the optical pick-up block.

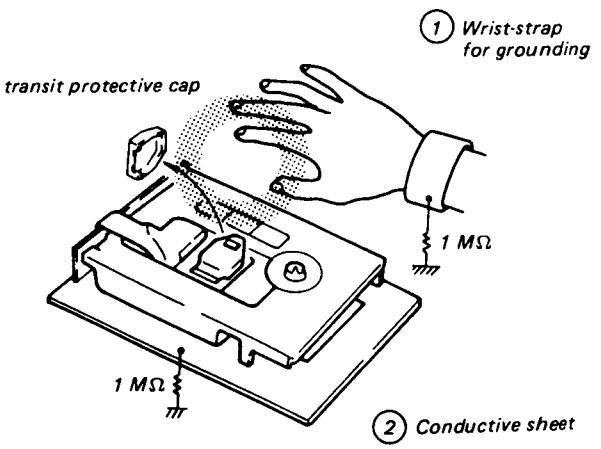
Printed Matter Included in the Repair Parts

When opening or repairing a BU-1C, the procedure for grounding as follows is required to prevent damage caused by static electricity.

1. Grounding for the human body.
   Be sure to put on a wrist-strap for grounding (with impedance lower than $10^8\Omega$) whose other end is grounded The strap works to drain away the static electricity built-up on the human body.
2. Grounding for the work table.
   Be sure to lay on the table a cunductive sheet (with impedance lower than $10^9\Omega$) such as sheet of copper which is grounded.
3. As static electricity built-up on clothes is not drained away, be careful not to let your clothes touch the BU-1C.

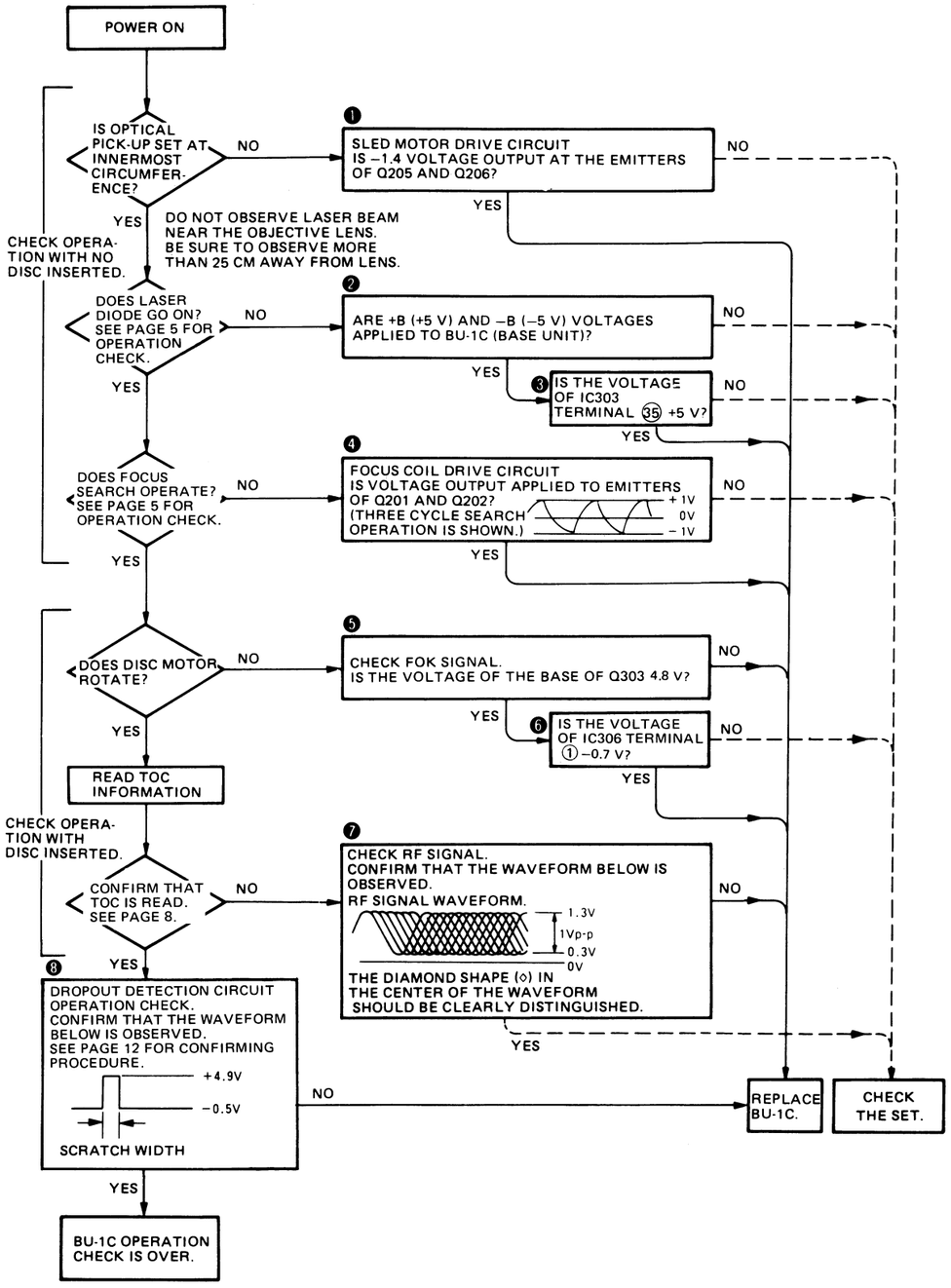


The unit BU-1C.

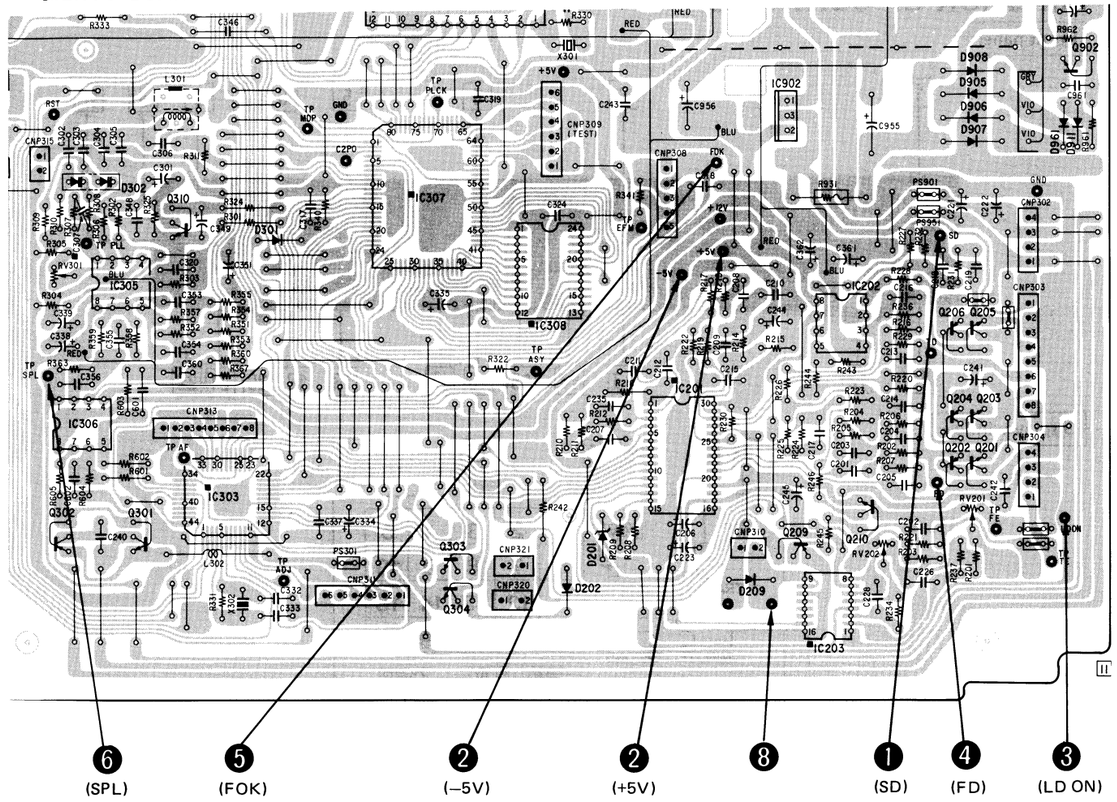


FLOW CHART OF BU-1C (BASE UNIT) TROUBLESHOOTING

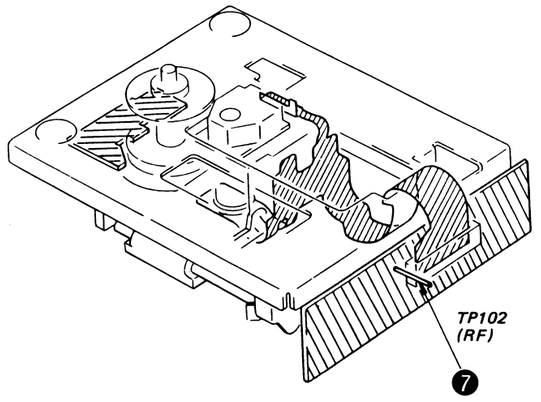
- Confirm all connectors around BU-1C (base unit) are secured before the following check.


POWER ON
IS OPTICAL PICK-UP SET AT INNERMOST CIRCUMFERENCE?
NO
YES
❶ SLED MOTOR DRIVE CIRCUIT IS −1.4 VOLTAGE OUTPUT AT THE EMITTERS OF Q205 AND Q206?
NO
YES
DO NOT OBSERVE LASER BEAM NEAR THE OBJECTIVE LENS. BE SURE TO OBSERVE MORE THAN 25 CM AWAY FROM LENS.
CHECK OPERATION WITH NO DISC INSERTED.
DOES LASER DIODE GO ON? SEE PAGE 5 FOR OPERATION CHECK.
NO
❷ ARE +B (+5 V) AND −B (−5 V) VOLTAGES APPLIED TO BU-1C (BASE UNIT)?
NO
YES
❸ IS THE VOLTAGE OF IC303 TERMINAL 35 +5 V?
NO
YES
DOES FOCUS SEARCH OPERATE? SEE PAGE 5 FOR OPERATION CHECK.
NO
❹ FOCUS COIL DRIVE CIRCUIT IS VOLTAGE OUTPUT APPLIED TO EMITTERS OF Q201 AND Q202? (THREE CYCLE SEARCH OPERATION IS SHOWN.)
+1V
0V
−1V
NO
YES
YES
DOES DISC MOTOR ROTATE?
NO
❺ CHECK FOK SIGNAL. IS THE VOLTAGE OF THE BASE OF Q303 4.8 V?
NO
YES
❻ IS THE VOLTAGE OF IC306 TERMINAL ① −0.7 V?
NO
YES
READ TOC INFORMATION
CHECK OPERATION WITH DISC INSERTED.
CONFIRM THAT TOC IS READ. SEE PAGE 8.
NO
❼ CHECK RF SIGNAL. CONFIRM THAT THE WAVEFORM BELOW IS OBSERVED.
RF SIGNAL WAVEFORM.
1.3V
1Vp-p
0.3V
0V
THE DIAMOND SHAPE (◇) IN THE CENTER OF THE WAVEFORM SHOULD BE CLEARLY DISTINGUISHED.
NO
YES
YES
❽ DROPOUT DETECTION CIRCUIT OPERATION CHECK. CONFIRM THAT THE WAVEFORM BELOW IS OBSERVED. SEE PAGE 12 FOR CONFIRMING PROCEDURE.
+4.9V
−0.5V
SCRATCH WIDTH
NO
YES
REPLACE BU-1C.
CHECK THE SET.
BU-1C OPERATION CHECK IS OVER.

[SERVO BOARD]



BU-1C (BASE UNIT)



CHECKING TOC INFORMATION READING

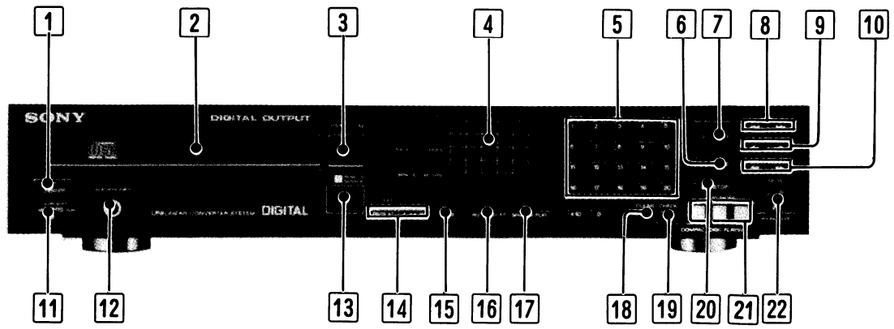
If TOC information is read correctly, the number of selections on the disc and the total playing time will be displayed.

The display will be as follows for YEDS-1.

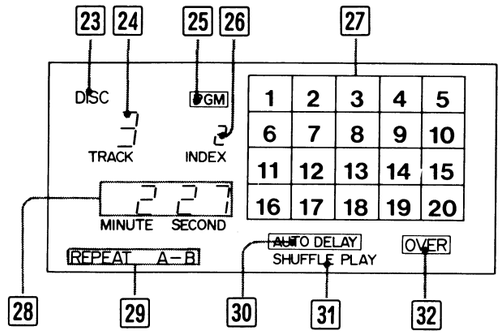
CDP-502ESII/552ESDII/620ESII/650ESDII

FUNCTION OF CONTROLS

Front panel

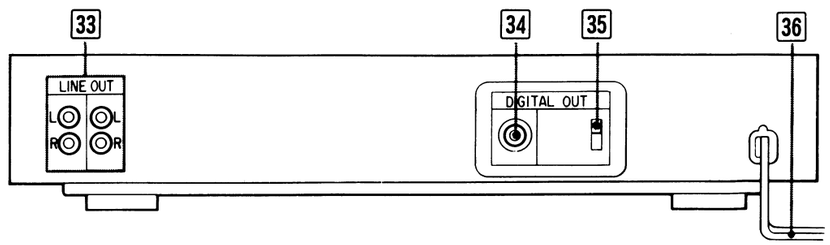


Display window

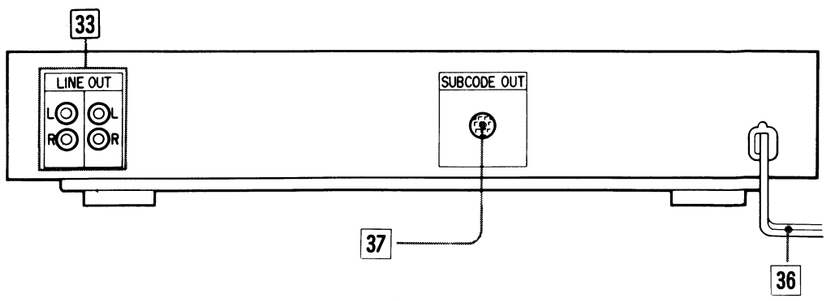


Rear panel

CDP-552ESDII/650ESDII:



CDP-502ESII/620ESII:



Front panel

1 POWER switch

2 Disc compartment
Place a compact disc here.

3 ⏏ OPEN/CLOSE button

4 Display window

5 Direct selection buttons
Select the desired selection directly by number.

6 ❚❚ PAUSE button and indicator
Press to pause during play. To release the pause mode, press it again.

7 ▶ PLAY button and indicator

8 AMS (Automatic Music Sensor) buttons
Press to search for the desired selection.

9 INDEX buttons
Press to search for a particular index number to begin playback at that point.

10 Manual search buttons
Press to search for the desired portion of the selection.

11 TIMER switch
Slide to play back when using the timer available optionally.

12 HEADPHONES jack (stereo phone jack)

13 Remote sensor and indicator (for remote control)
Picks up the infrared transmitting signal from the supplied remote commander.

14 REPEAT programming buttons
Press to repeat play. There are five types of repeat play: one selection, all selections, A ⟷ B, program and shuffle repeat.

15 TIME (elapsed or remaining time) button
Shows the elapsed time, the remaining time on both the selection being played and the whole disc.

16 AUTO DELAY button
Inserts two seconds of blank space before the beginning of each selection.

17 SHUFFLE PLAY button
Press to play selections in a random order.

18 CLEAR button
Press to clear the programmed selections.

19 CHECK button
Press to check the order of the programmed selections.

20 ■ STOP button

21 PLAY MODE buttons
PROGRAM button: Press to play the programmed selections.
SINGLE button: Press to play one selection.
CONTINUE buttuon: Press to play from the first (or desired) selection to the last selection.

22 LINE OUT/ 🎧 PHONE LEVEL (headphone level) control
Adjusts the output levels for LINE OUT jacks on the rear panel or the HEADPHONES jack on the front panel.

Display window

23 DISC indicator
Lights up when the disc compartment is closed with a disc in place or when the disc compartment is opened.

24 TRACK indicator
Shows the track number of the selection being played.

25 PGM (program) indicator
Lights up while programming is being done and while checking the programmed order.

26 INDEX indicator
Displays the index number of the selection being played.

27 Music calender display window
Displays disc selection numbers up to 20 selections.

28 Time counter
Shows the elapsed time the selection has been played.

29 REPEAT indicator
Lights up during repeat play.

30 AUTO DELAY indicator
Lights up when the AUTO DELAY button is pressed.

31 SHUFFLE PLAY indicator
Lights up when the SHUFFLE PLAY button is pressed.

32 OVER indicator
Lights up when a disc with more than 20 selections is inserted.

Rear panel

The illustration on page 3 shows the model available in European countries.

33 LINE OUT jacks
FIXED: Output level is constant.
VARIABLE: Output level can be changed with the LINE OUT control and supplied remote commander.

34 DIGITAL OUT jack
Directly outputs the digital audio and subcode data read from the disc.
Connect to the DIGITAL IN jack of an optional DAS-702ES D/A converter unit.

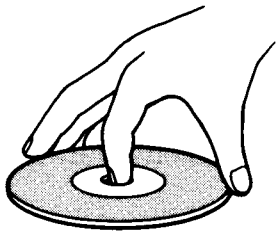
35 DIGITAL OUT switch
Slide to select the output signal from the DIGITAL OUT jack.
ON: for audio and subcode data output
ON (FOR AUDIO USE): for audio data output only. Set to this position when listening to music through a connected D/A converter unit.
OFF: for no digital data output. Set to this position when listening to music through the LINE OUT jacks.

36 AC power cord

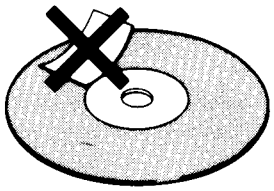
37 SUBCODE OUT connector
This connector is provided to extend the utility of this compact disc player by allowing for the connection of optional equipment which will be available in the future.

NOTES ON COMPACT DISCS

Handle the disc by its edge, and to keep the disc clean, do not touch the rainbow colored surface.



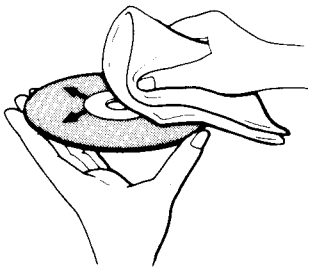
Do not stick paper or tape on the labeled surface.



Not this way

Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight where there can be a considerable rise in the temperature.

Before playing, clean the disc with the cleaning cloth. Wipe the disc from the center out.



Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog discs.

After playing, store the disc in its case.

SECTION 1
OUTLINE

1-1. CIRCUIT DESCRIPTION

The circuits on this set are almost the same as those on CDP-502ES/620ES and CDP-552ESD/650ESD, which is already on the market. Therefore, only the dropout detection circuit and mechanism control IC (IC303), which change base unit BU-1 to BU-1C, will be explained here. Refer to the circuit descriptions in the CDP-502ES/620ES and CDP-552ESD/650ESD Service Manual for other portions.

1. Dropout Detection Circuit

This circuit is on the base unit BU-1C RF board. If there are any bubbles or scratches made on the disc when it is produced, these will adversely affect tracking, or focus servo, when the disc is played. This will cause mechanical noise to be generated from the pick-up, sound skipping, or electrical noise. This circuit detects these bubbles and scratches, and the output then lowers tracking gain or focus gain loop gain to prevent these problems.

Next the operation will be explained. Please look at Fig. 1. During PLAY, the RF signal output from IC101 pin ③ is applied to D101 via IC102-1 buffer. This RF signal is envelope wave detected at D101. Therefore, during normal operation (no bubbles or scratches on the disc) D101 cathode side has a DC component. Bias is applied via D103 and R115 so that IC102-2 comparator output is low at this time. D102, R114 and C113 perform the role of adjusting auto bias relative to RF signal level fluctuation and also act as a smoothing circuit so that IC102-2 bias dose not change even if there is dropout.

Then, if there are bubbles or scratches, the RF signal is cut, and IC102-2 pin ② voltage goes lower than that of IC102-2 pin ③ via C111, and during this period, comparator output IC102-2 pin ① is inverted and becomes high. This signal switches IC203 switch, and tracking gain and focus gain loop gain are lowered.

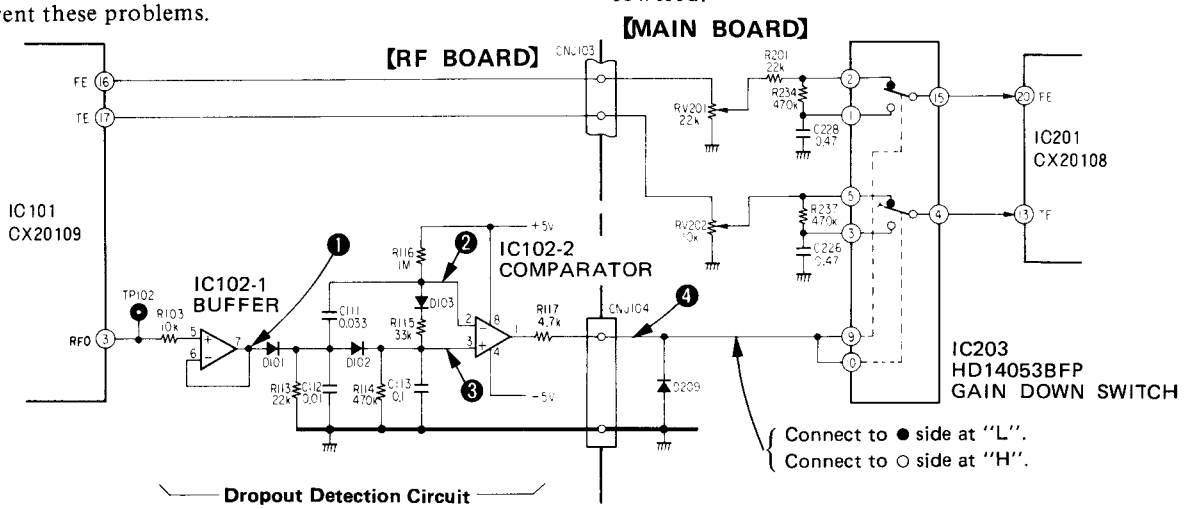


Fig. 1 Dropout Detection Circuit and Gain Down Switch Circuit

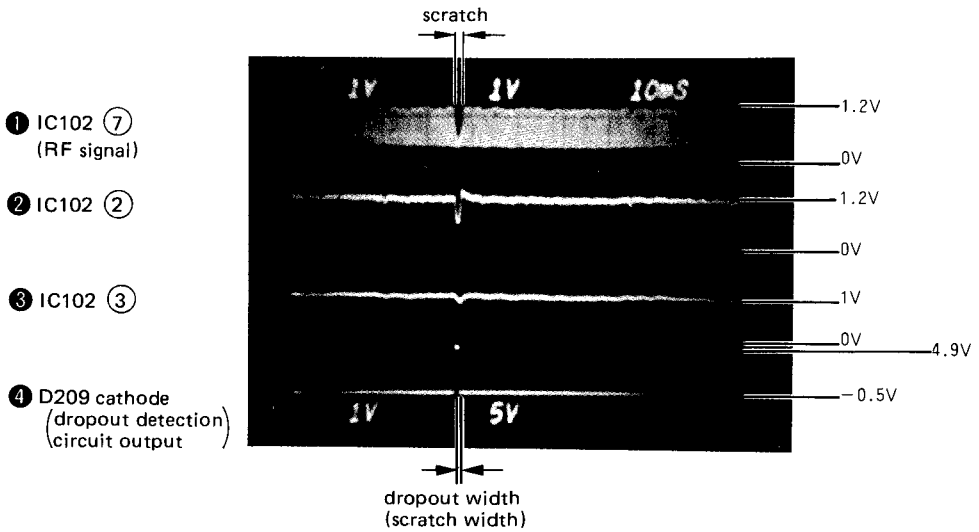


Fig. 2 Waveform when Dropout is Detected

(Measured on YEDS-1 disc with tape of about 1 mm width stuck on as in Fig. 3)

- **Dropout Detection Circuit Operation Check**

1. Stick black or red tape (about 1 mm wide) onto the disc as sown in Fig. 3. (This is to get the drop-out detection circuit output pulse.) Do not stick it on the part where the TOC is recorded, however.
2. Play the disc prepared in step 1.
3. Confirm that a waveform as shown in Fig. 2 ❹ is on main board D209 cathode side. Operation is normal if this pulse appears.

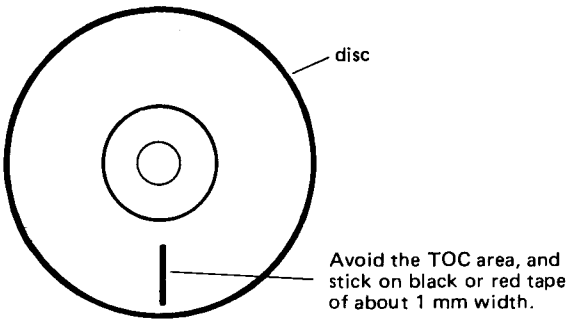


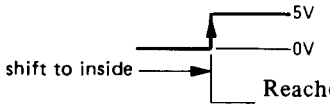
Fig. 3 Tape Location

2. Mechanism Control IC (IC303)

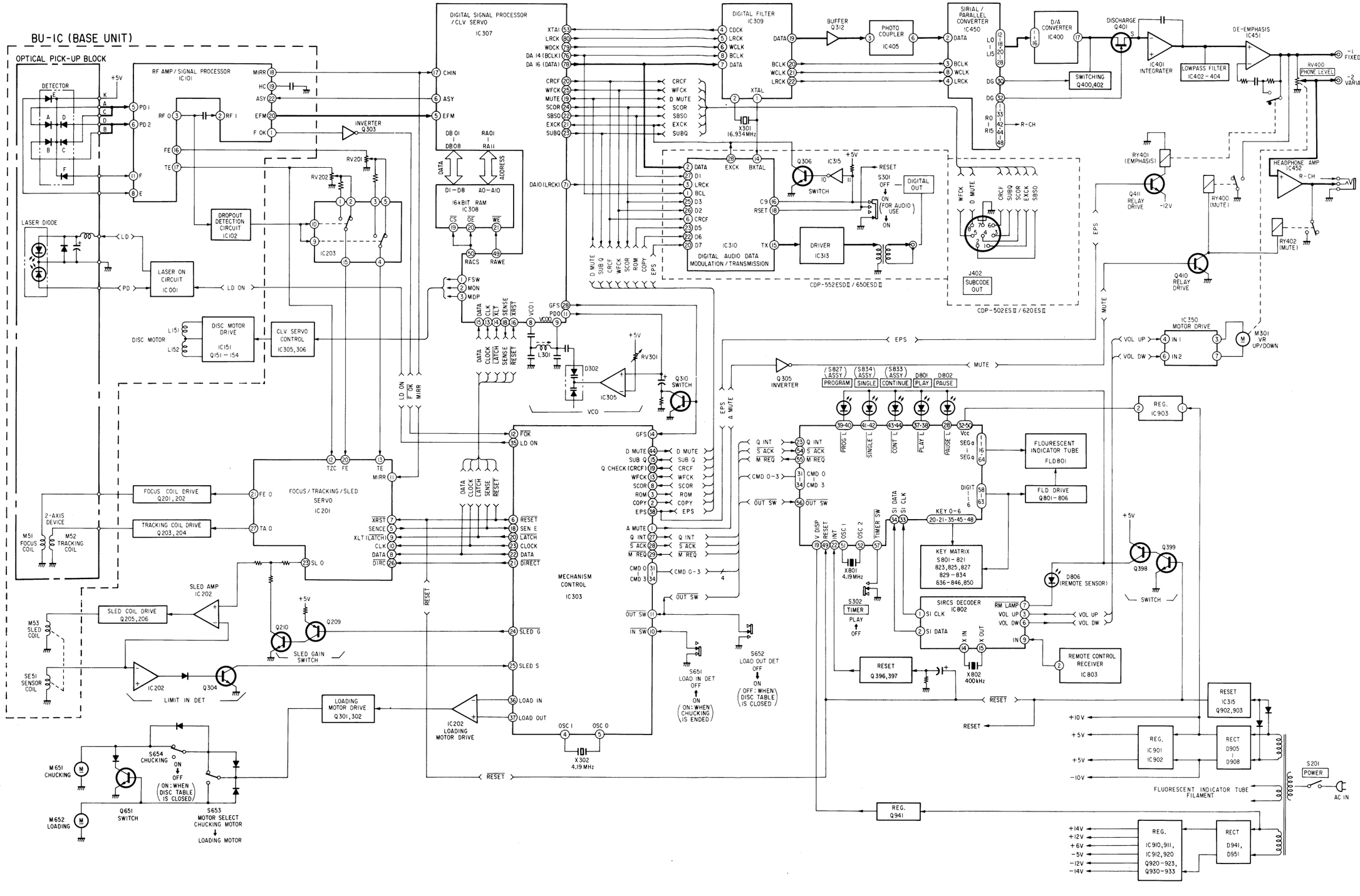
The mechanism control IC (IC303) uses the DATA pin, CLOCK pin and LATCH pin to instruct IC201 (servo IC CX20108) and IC307 (digital processing/ CLV servo IC CX23035), and also has TOC data and Q data memorized, which it uses in performing direct search, etc.

Pin Functions

Pin No.	I/O	Pin Name	Function
1	OUT	A MUTE	Audio signal muting control output. "H" during muting.
2	OUT	COPY	Signal output pin for CD copy inhibit to IC310. "L" for copy inhibit.
3	OUT	ROM	Disc identification signal output. Normally "L". "H" for CD ROM disc.
4	——	OSCO	Clock pin.
5	——	OSCI	Clock pin.
6	IN	$\overline{\text{RESET}}$	Reset input pin. Goes "H" in about 1.5 seconds after power ON.
7	IN	TEST	LSI test pin. Not used.
8	IN	SCOR	SUB Q sync signal input pin.
9	IN	$\overline{\text{ADJ}}$	When this pin goes "L", IC303 detects servo or other abnormalities and disc load out is not performed. Used for servo and PLL adjustment. Also, direct search is not performed, and access can only be done by conventional track jump.
10	IN	$\overline{\text{IN SW}}$	Input pin which detects that the disc table is closed. "L" for CLOSE.
11	IN	$\overline{\text{OUT SW}}$	Input pin which detects that the disc table is open. "L" for OPEN.
12	IN	$\overline{\text{FOK}}$	Focus OK signal input pin.
13	IN	WFCK	WFCK (Write Frame Clock) input pin.
14	IN	GFS	Guarded Frame Sync input pin. "H" is input when disc data can be read normally.
15	IN	SUB Q	SUB Q signal (selection address, emphasis data, etc.) input pin.
16	——	GND	Ground pin.
17	——	NC	Not used.
18	IN	SENSE	Input pin for IC201, IC307 SENS output.
19	IN	Q CHECK	Inputs CRC results of SUB Q output from IC307.

Pin No.	I/O	Pin Name	Function
20	OUT	$\overline{\text{LATCH}}$	Latch output pin for serial data to IC201, IC307.
21	OUT	$\overline{\text{DIRECT}}$	Output pin to IC201 during 1 track jump. Normally "H". Reverses track jump pulse direction at "L". When "H" again, set to normal tracking mode. Outputs "L" for a set time by detection of TZC (Tracking Zero Cross) rise and fall.
22	OUT	DATA	Output pin for serial data to IC201, IC307.
23	OUT	CLOCK	Output pin for serial data transmission clock to IC201, IC307.
24	OUT	$\overline{\text{SLED G}}$	Output pin which controls sled motor gain. Normally "H". "L" during access.
25	IN	SLED S	Input pin which detects optical block at innermost circumference.  Reaches innermost circumference. Detected by going from "L" to "H".
26	IN	AF ADJ	Not used. Normally "H".
27	OUT	Q INT	Trigger output pin for data sent to IC801.
28	OUT	$\overline{\text{S ACK}}$	IC801 M REQ signal acknowledge signal output pin.
29	IN	$\overline{\text{M REQ}}$	IC801 M REQ signal input pin.
30	—	NC	Not used.
31 – 34	IN/OUT	CMD0 – CMD3	Data input/output with IC801.
35	OUT	LD ON	Output pin which controls laser diode ON/OFF.
36	OUT	LOAD IN	Output pin which drives loading motor to close side.
37	OUT	LOAD OUT	Output pin which drives loading motor to open side.
38	OUT	EPS	Output pin which detects disc emphasis and switches emphasis ON/OFF.
39	——	V_{DD}	Power supply pin (5 V)
40	OUT	REC MUTE	Synchro REC MUTE signal output pin. Not used.
41	OUT	PAUSE	Synchro PAUSE release signal output pin. Not used.
42	IN	$\overline{\text{REC M}}$	Synchro REC signal input pin. Not used.
43	——	NC	Not used.
44	OUT	D MUTE	Digital signal muting control output pin. "H" for muting.

1-2. BLOCK DIAGRAM

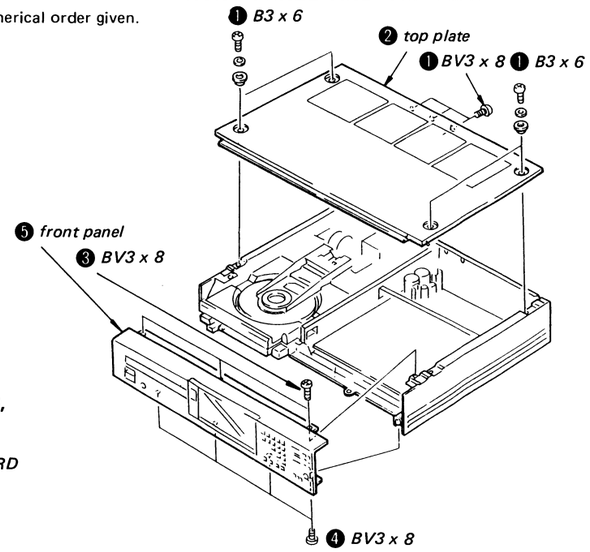


CDP-502ESII/552ESDII/620ESII/650ESDII

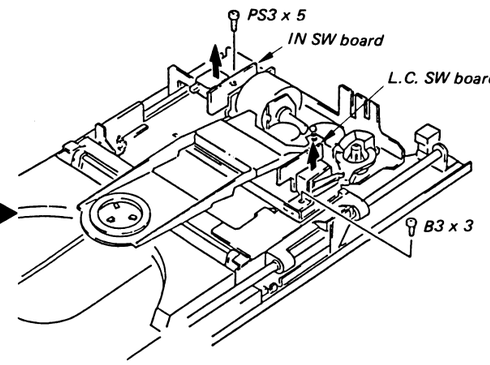
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

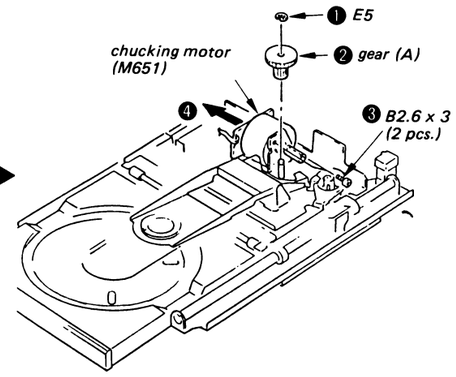
FRONT PANEL AND TOP PLATE



IN SW/L.C. SW BOARD

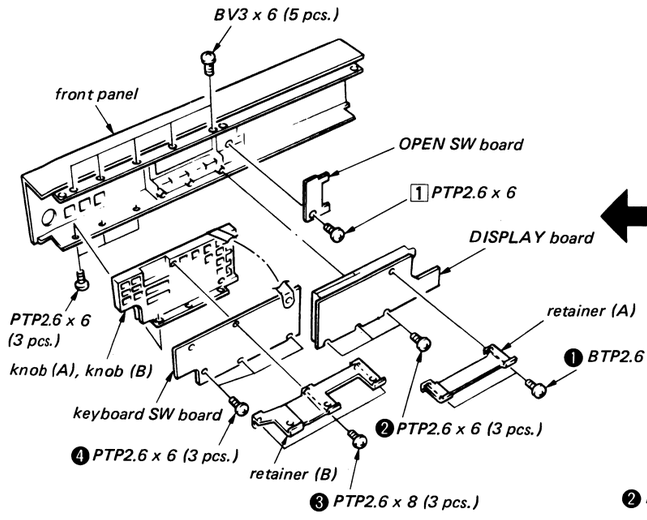


CHUCKING MOTOR (M651)

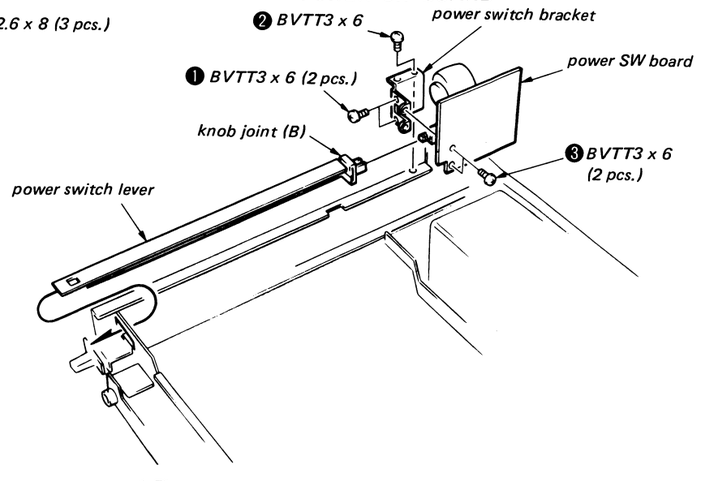


DISPLAY BOARD, KEYBOARD SW BOARD, OPEN SW BOARD

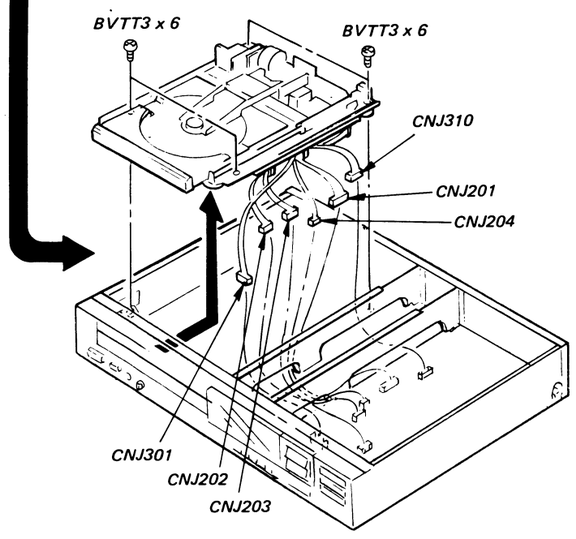
❶ – ❹ : *DISPLAY BOARD, KEYBOARD SW BOARD*
[7] : *OPEN SW BOARD*


BV3 x 6 (5 pcs.)
front panel
OPEN SW board
[1] PTP2.6 x 6
DISPLAY board
PTP2.6 x 6 (3 pcs.)
knob (A), knob (B)
retainer (A)
❶ BTP2.6 x 8 (2 pcs.)
keyboard SW board
❷ PTP2.6 x 6 (3 pcs.)
❹ PTP2.6 x 6 (3 pcs.)
retainer (B)
❸ PTP2.6 x 8 (3 pcs.)

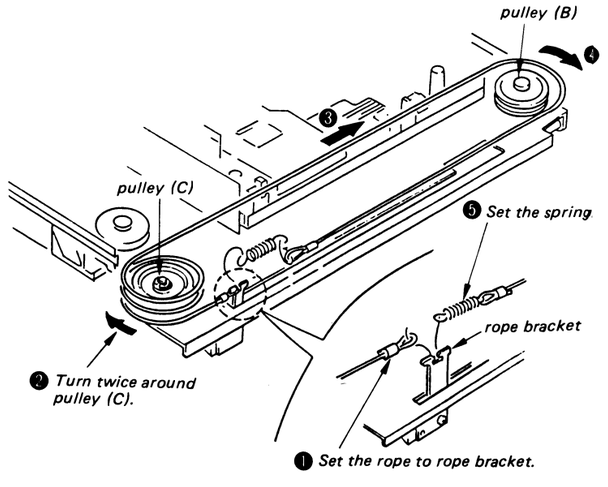
POWER SW BOARD



MECHANISM SECTION



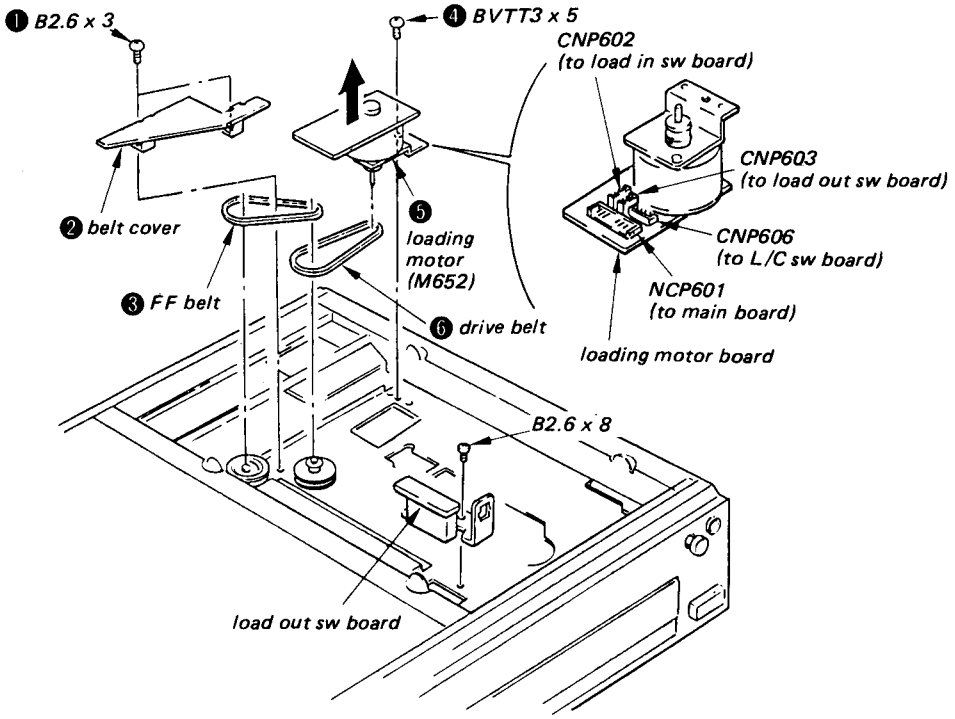
ROPE STRINGING



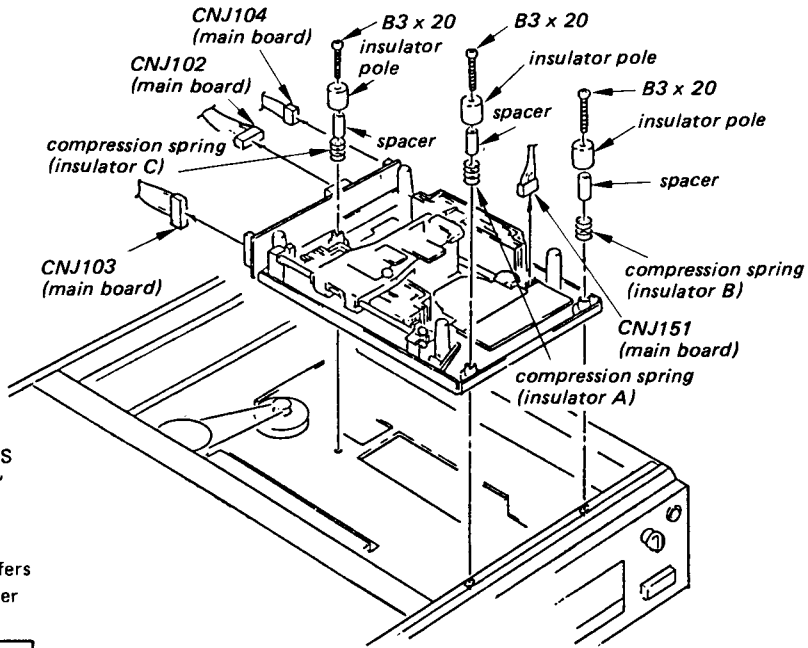
BOTTOM PLATE

Remove bottom plate by taking out 7 screws (BV3 x 8).
(It is possible to check main board from conductor side.)

LOADING MOTOR (M652), FF BELT, DRIVE BELT, LOAD OUT SW BOARD



BASE UNIT (BU-1C)



Note (1): When replacing BU-1C, refer to "NOTES ON HANDLING BASE UNIT (BU-1C)" on page 6 to prevent damage caused by static electricity.

Note (2): Each compression spring (insulator) differs in size and turns. When installing it, refer to the following list.

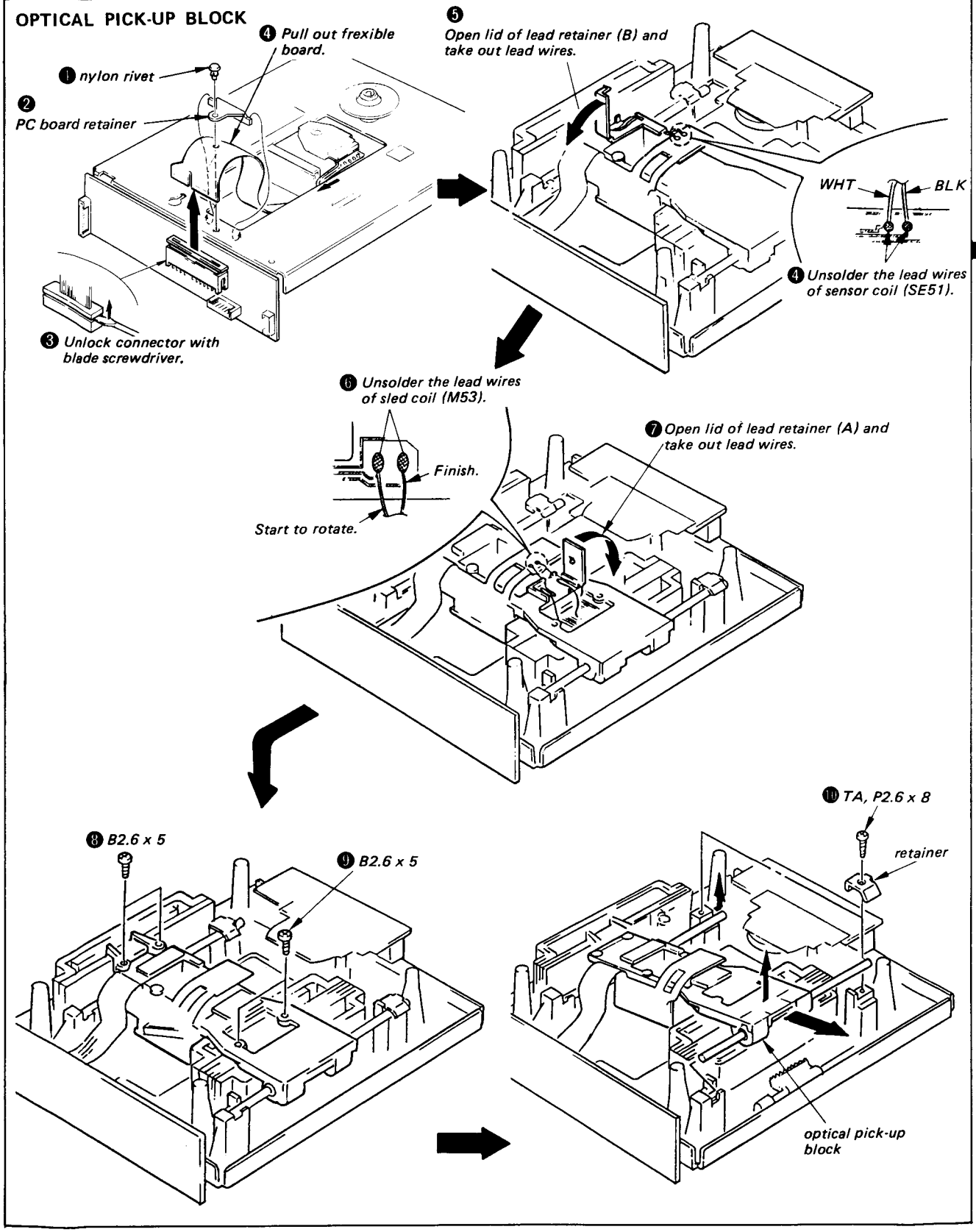
compression spring (insulator)	turn number	color
A	6	silver
B	4.5	gold
C	3.5	black

Note (3): RF board is included in BU-1C and can not be replaced in itself.

BASE UNIT (BU-1C)
(See page 19.)

Refer to "NOTES ON HANDLING BASE UNIT (BU-1C)" on page 6 to prevent damage caused by static electricity.

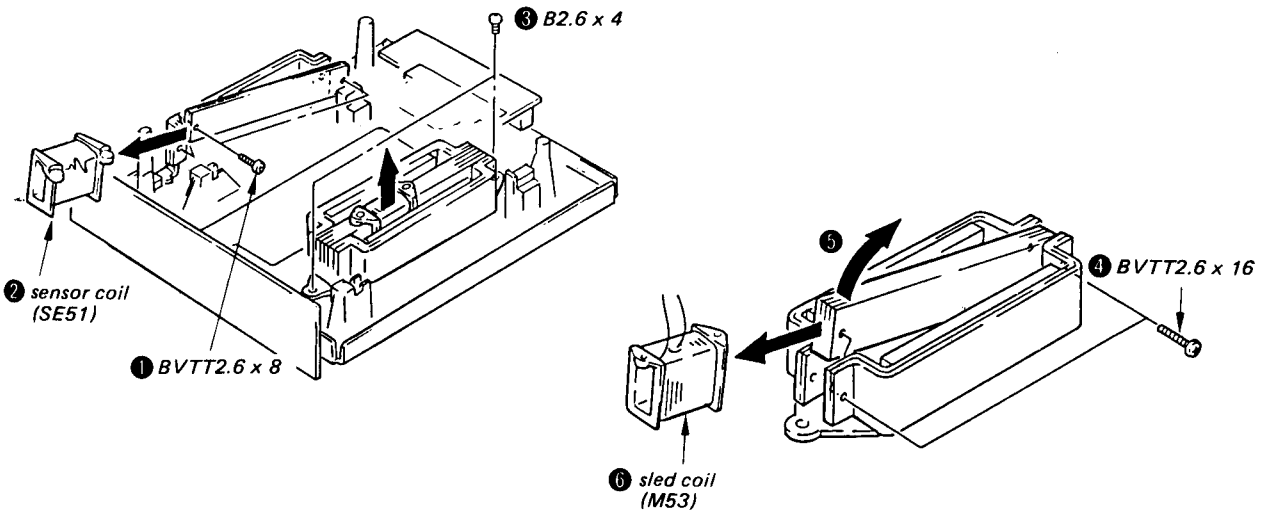
OPTICAL PICK-UP BLOCK


❶ nylon rivet
❷ PC board retainer
❸ Unlock connector with blade screwdriver.
❹ Pull out frexible board.
❺ Open lid of lead retainer (B) and take out lead wires.
WHT
BLK
❹ Unsolder the lead wires of sensor coil (SE51).
❻ Unsolder the lead wires of sled coil (M53).
Finish.
Start to rotate.
❼ Open lid of lead retainer (A) and take out lead wires.
❽ B2.6 x 5
❾ B2.6 x 5
❿ TA, P2.6 x 8
retainer
optical pick-up block

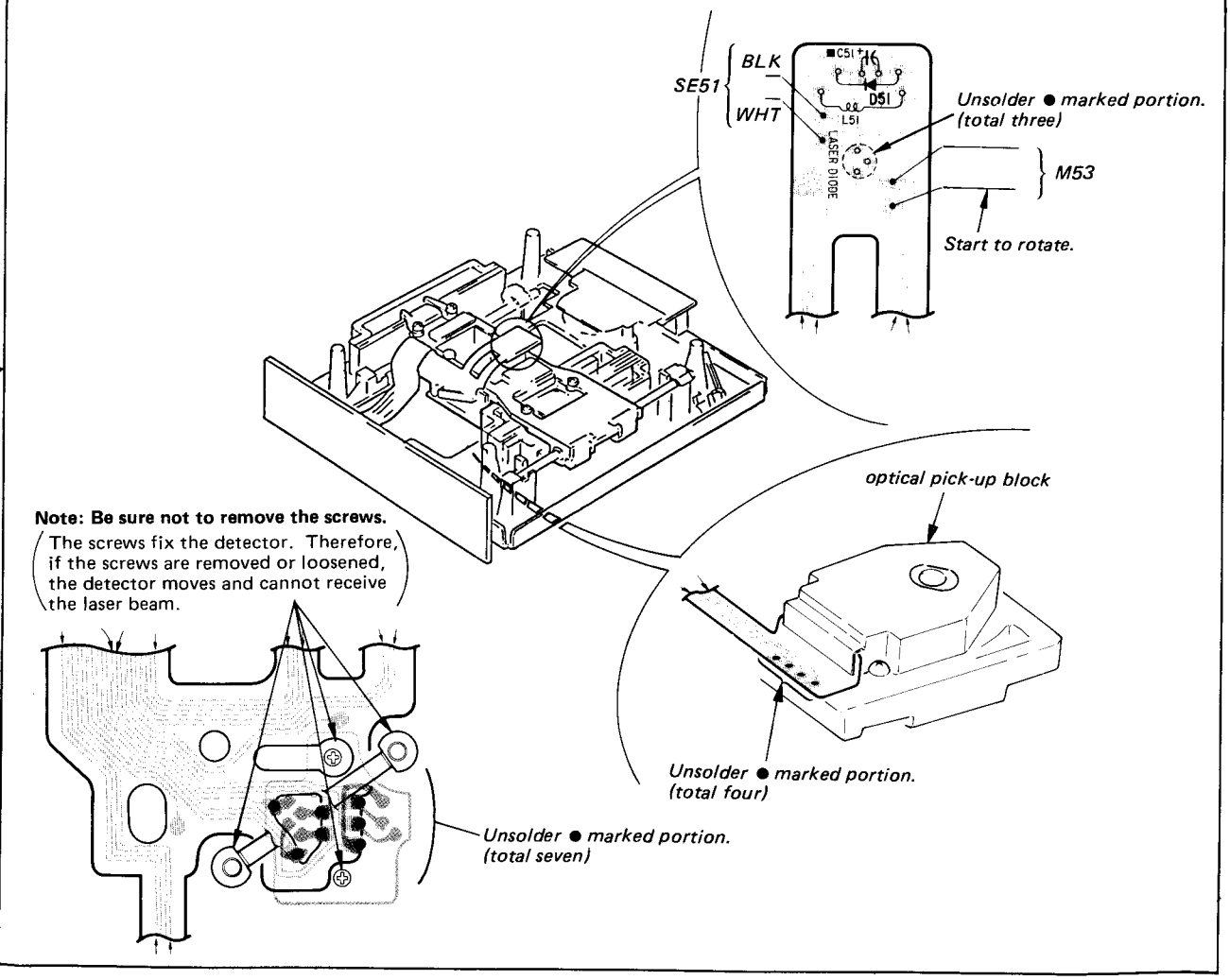
SLED COIL (M53), SENSOR COIL (SE51)

❶, ❷ : *sensor coil (SE51)*

❸~❻ : *sled coil (M53)*



FLEXIBLE BOARD



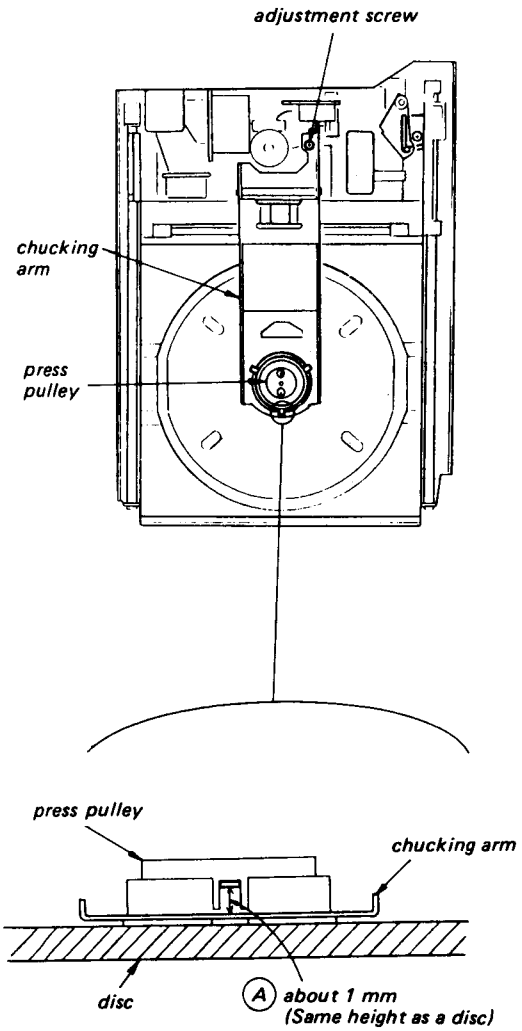
Note: Be sure not to remove the screws.
The screws fix the detector. Therefore, if the screws are removed or loosened, the detector moves and cannot receive the laser beam.

SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT
CHUCKING ARM HEIGHT ADJUSTMENT

Adjust the height of portion (A) with disc inserted and disc table closed.

Repeat loading and confirm that chucking arm does not touch disc pulley.



3-2. ELECTRICAL ADJUSTMENTS

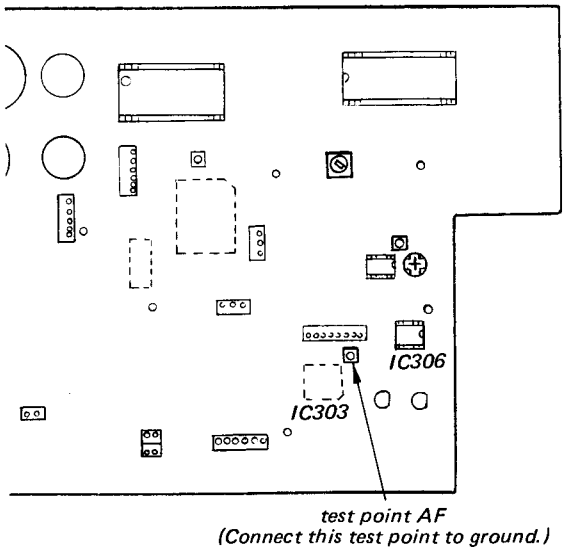
1. Perform adjustments in the order given.
2. Use YEDS-1 disc (3-703-696-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10 MΩ impedance.

Adjustment Mode

1. Connect servo board test point AF and ground.
   (This is to prevent the disc table from opening even though pits are not read, by making microcomputer IC303 pin (9) low.)
2. Turn POWER switch on.
   (To reset microcomputer.)

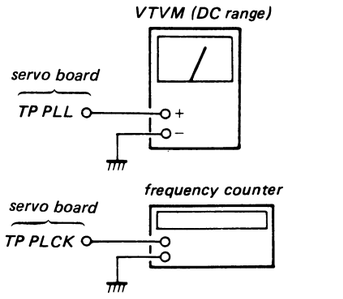
   After adjustment, remove the lead wire connecting test points AF and ground.

Adjustment Location: servo board



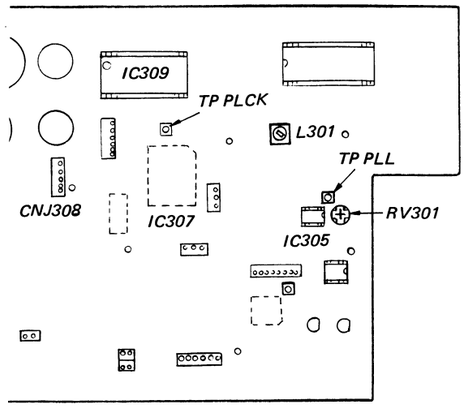
RF PLL Adjustment

Procedure:



1. Turn POWER switch ON (stop mode).
2. Remove connector CNJ308.
3. Put set into adjustment mode. (See page 22.)
4. Connect VTVM to servo board test point TP PLL.
5. Adjust main board RV301 so that reading on VTVM is 0 V ±50 mV.
6. Connect the frequency counter to servo board test point TP PLCK.
7. Adjust servo board L301 so that the reading on frequency counter is 4.4018 MHz ±20 kHz.
8. Reconnect lead wires connected in adjustment mode and connect the connector CNJ308.
9. Put disc (YEDS-1) in and press ▷PLAY button.
10. Confirm that reading on frequency counter is 4.3218 MHz.

Adjustment Location: servo board



REFERENCE

Focus/Tracking Gain Adjustment

A frequency responce analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

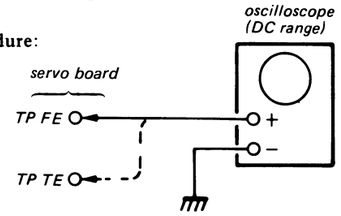
Symptoms \ Gain	Focus	Tracking
• The time until music starts becomes longer for STOP →▷PLAY or automatic selection (⏮ ⏭ buttons pressed.) (Normally takes about 1 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP→▷PLAY or automatic selection.(⏮ ⏭ buttons pressed.)	–	low
• Disc table opens shortly after STOP→▷PLAY.	low or high	–
• Sound is interrupted during PLAY. Or time counter display stops progressing.	–	low
• More noise during 2-axis device operation.	high	high

The following is a simple adjustment method.

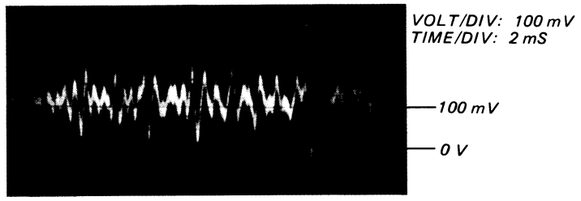
– Primary Adjustment –

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the primary adjustment are only a little different, return the controls to the original position.

Procedure:

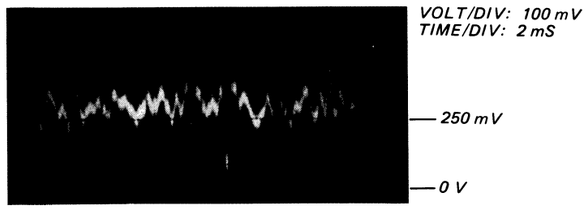


1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.)
2. Put set in adjustment mode. (See page 23.)
3. Insert disc (YEDS-1) and press ▷PLAY button.
4. Connect oscilloscope to servo board TP FE.
5. Adjustment RV201 so that the waveform is as shown in the figure below. (focus gain adjustment)

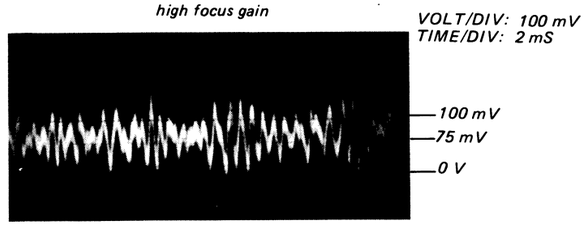


- Incorrent Examples (DC level changes more than on adjusted waveform)

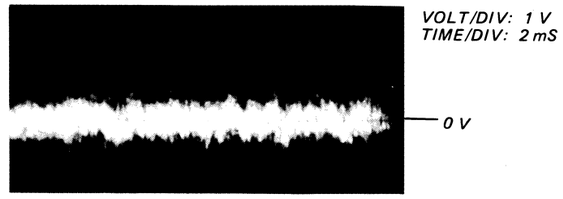
low focus gain



high focus gain

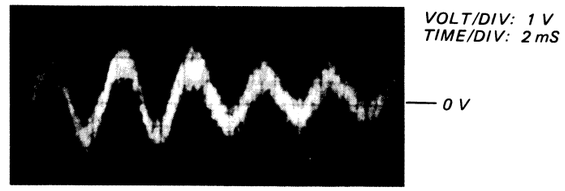


6. Connect oscilloscope to main board TP TE.
7. Adjust RV202 so that the waveform is as shown in the figure below. (tracking gain adjustment)

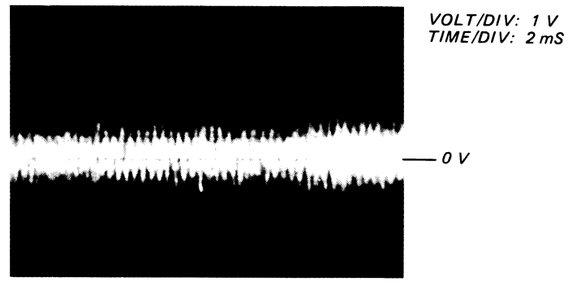


- Incorrect Examples (fundamental wave appears)

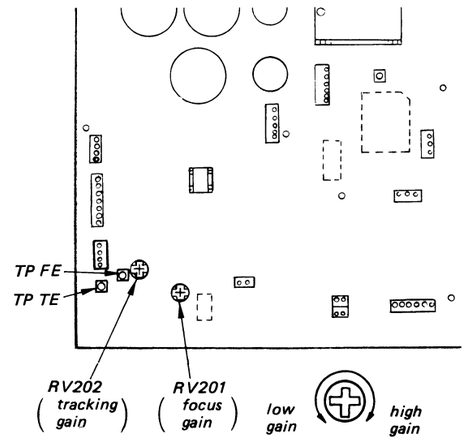
low tracking gain



high tracking gain
(higher fundamental wave than for low gain)



Adjustment Location: servo board

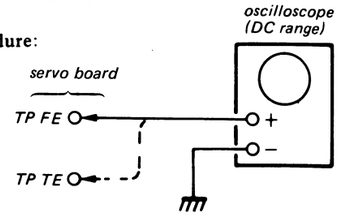


The following is a simple adjustment method.

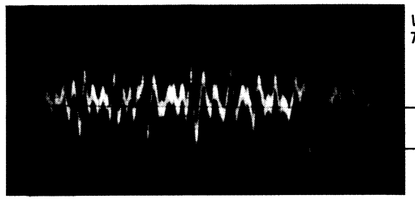
– Primary Adjustment –

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the primary adjustment are only a little different, return the controls to the original position.

Procedure:

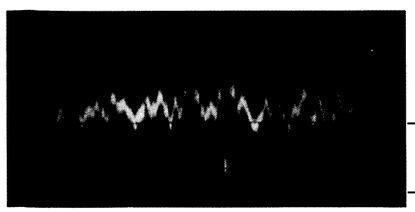


1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.)
2. Put set in adjustment mode. (See page 23.)
3. Insert disc (YEDS-1) and press ▷PLAY button.
4. Connect oscilloscope to servo board TP FE.
5. Adjustment RV201 so that the waveform is as shown in the figure below. (focus gain adjustment)

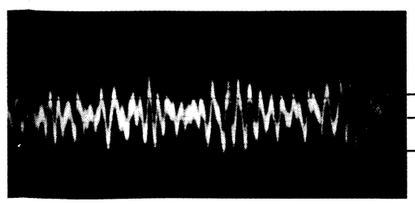


- Incorrent Examples (DC level changes more than on adjusted waveform)

low focus gain



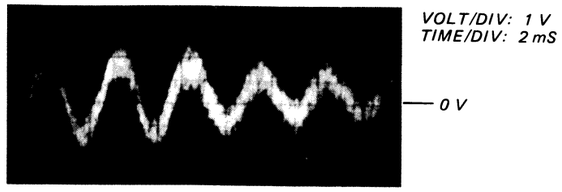
high focus gain



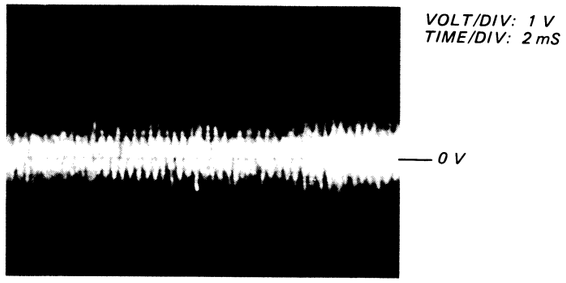
6. Connect oscilloscope to main board TP TE.
7. Adjust RV202 so that the waveform is as shown in the figure below. (tracking gain adjustment)

- Incorrect Examples (fundamental wave appears)

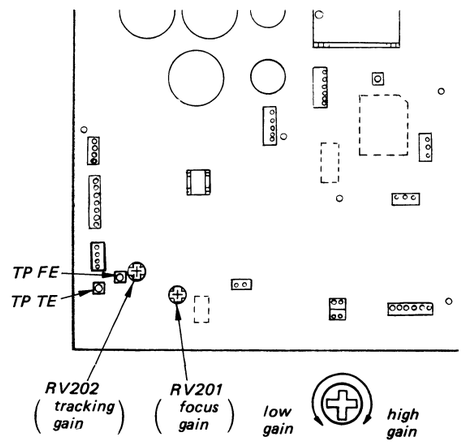
low tracking gain



high tracking gain
(higher fundamental wave than for low gain)

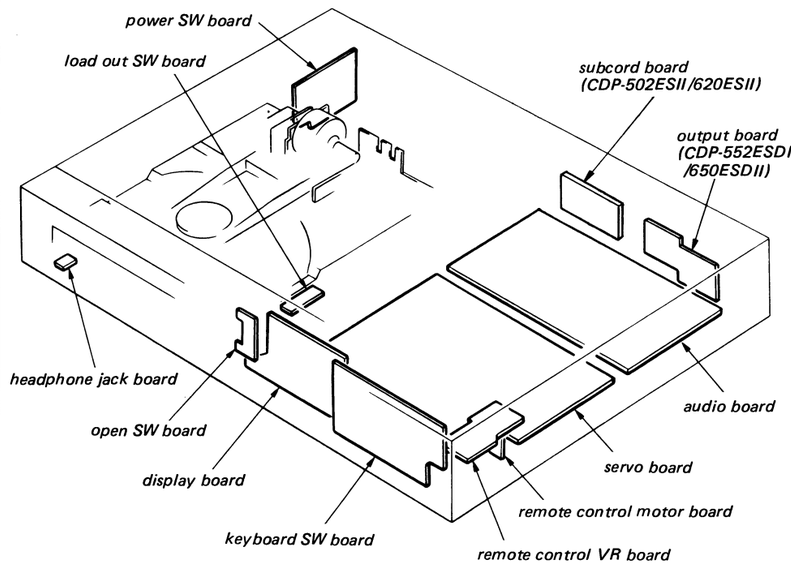


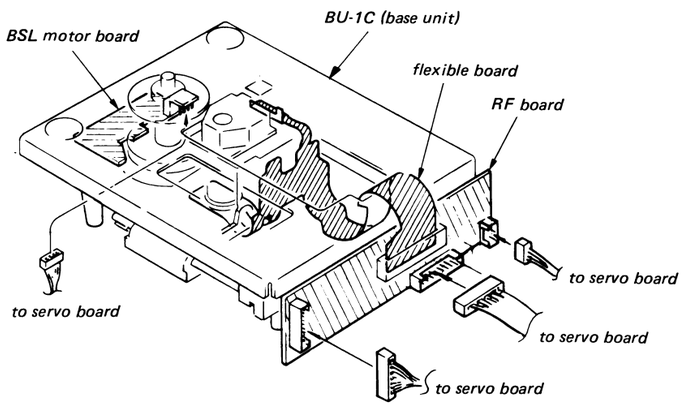
Adjustment Location: servo board

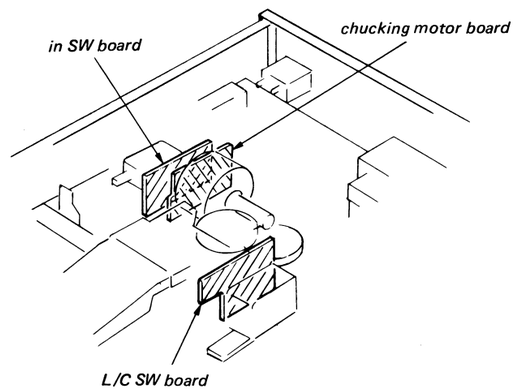


SECTION 4
DIAGRAMS

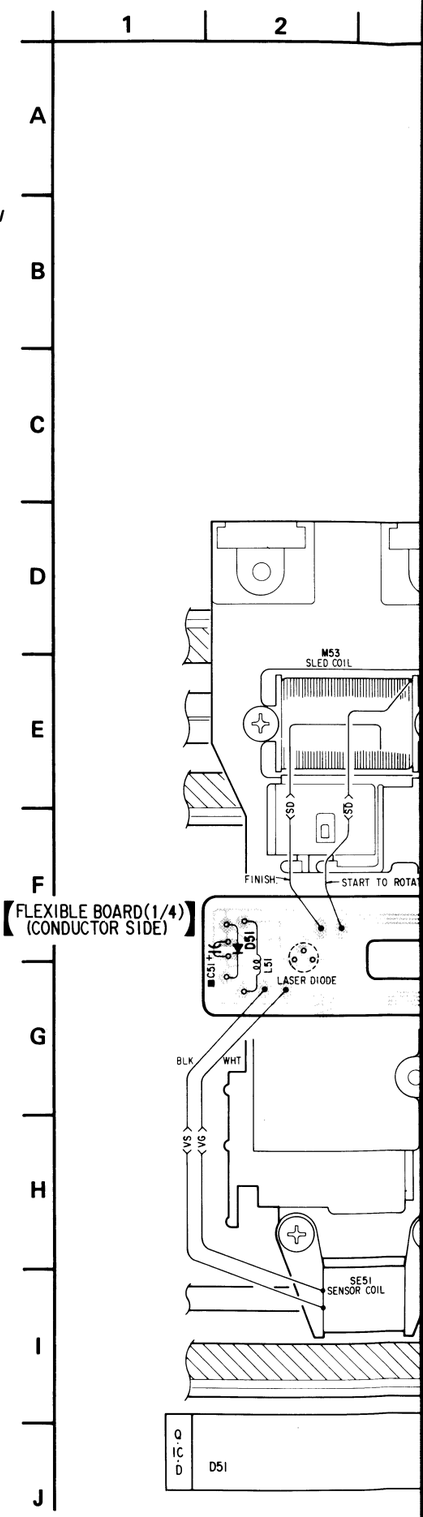
CIRCUIT BOARDS LOCATION





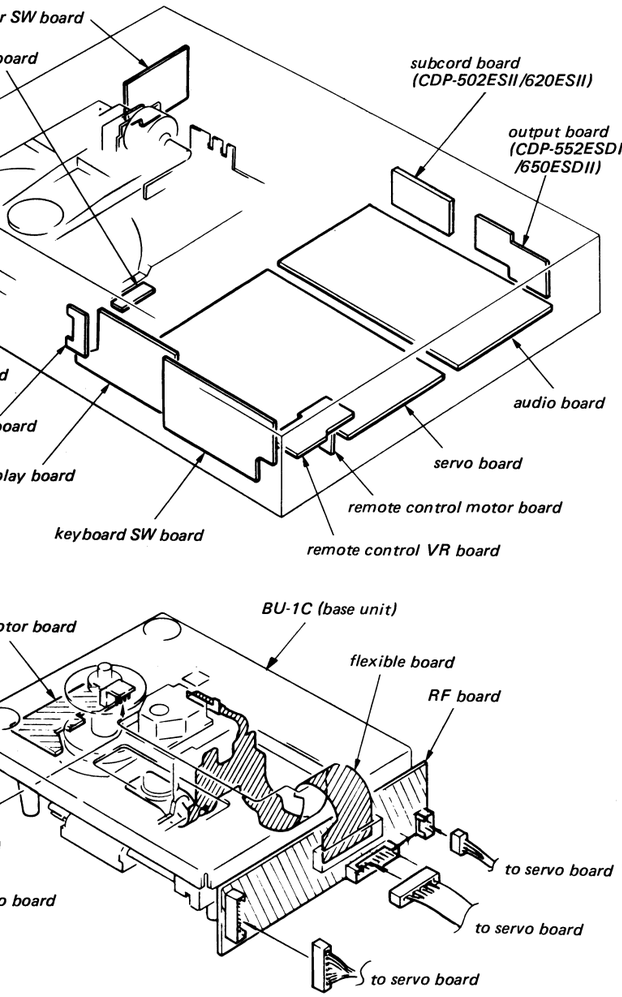


4-1. BU-1C (BASE UNIT) SECTION M

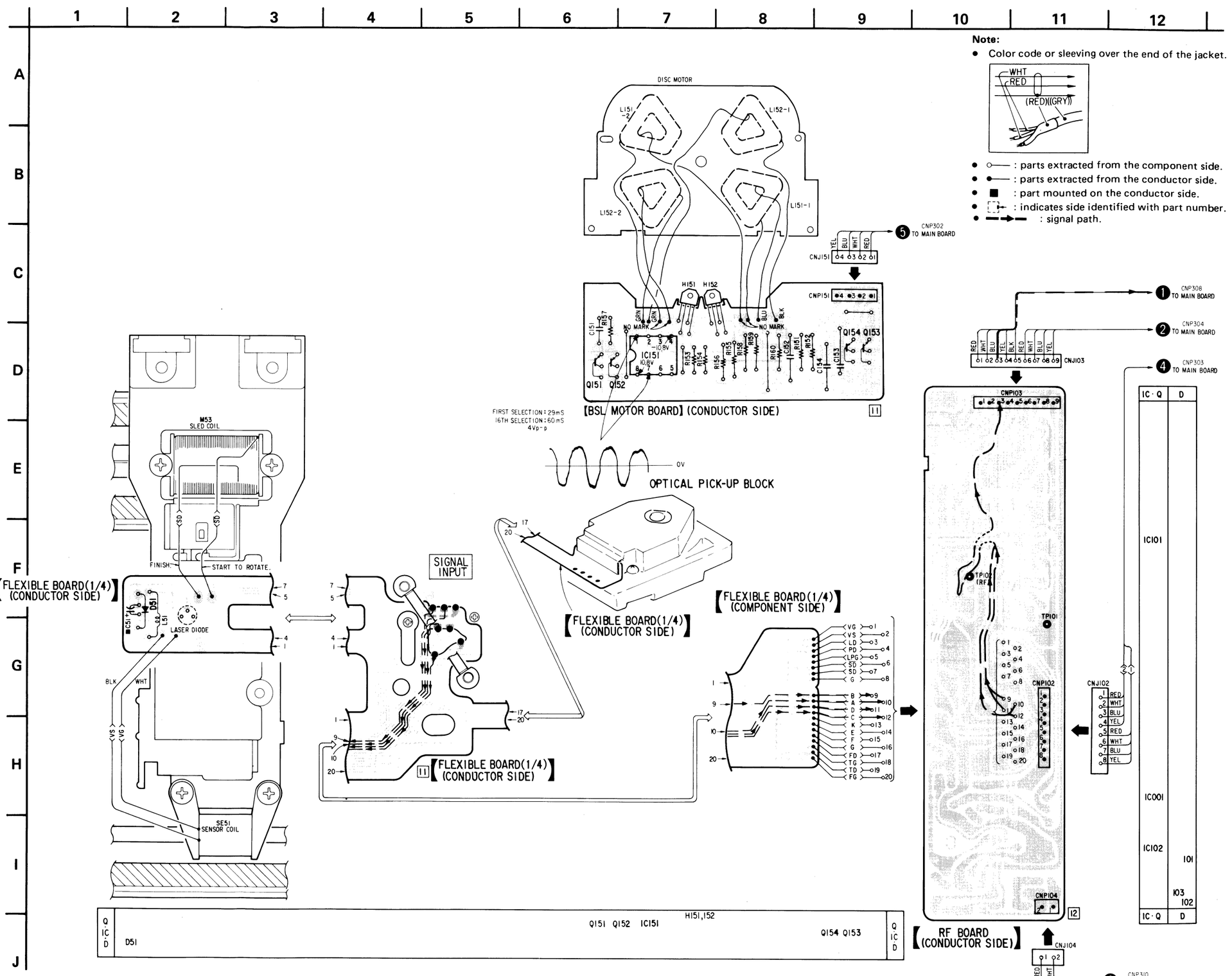


SECTION 4
DIAGRAMS

RDS LOCATION



4-1. BU-1C (BASE UNIT) SECTION MOUNTING DIAGRAM

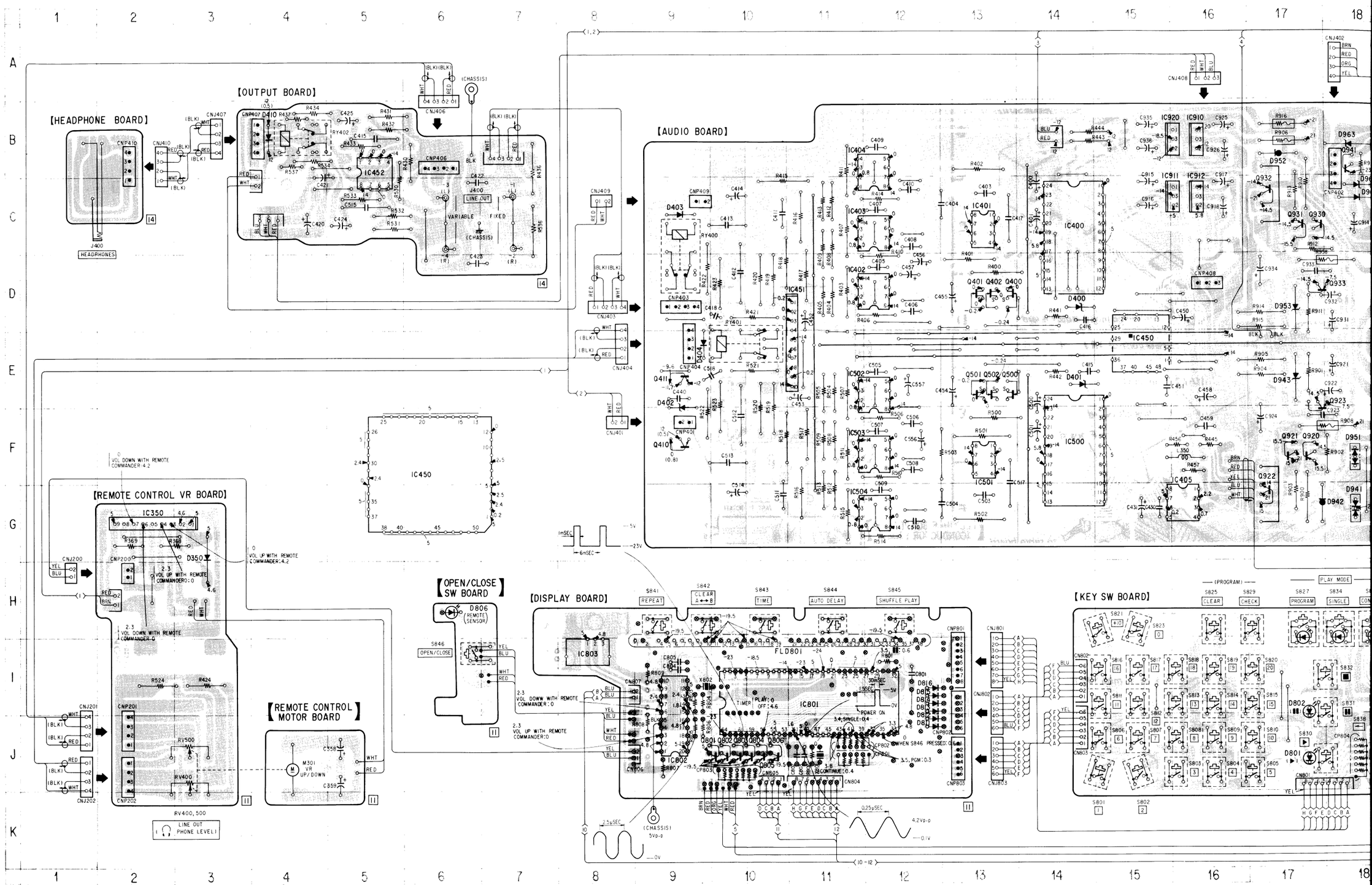


4-2. CDP-502ESII/620ESII MOUNTING DIAGRAM

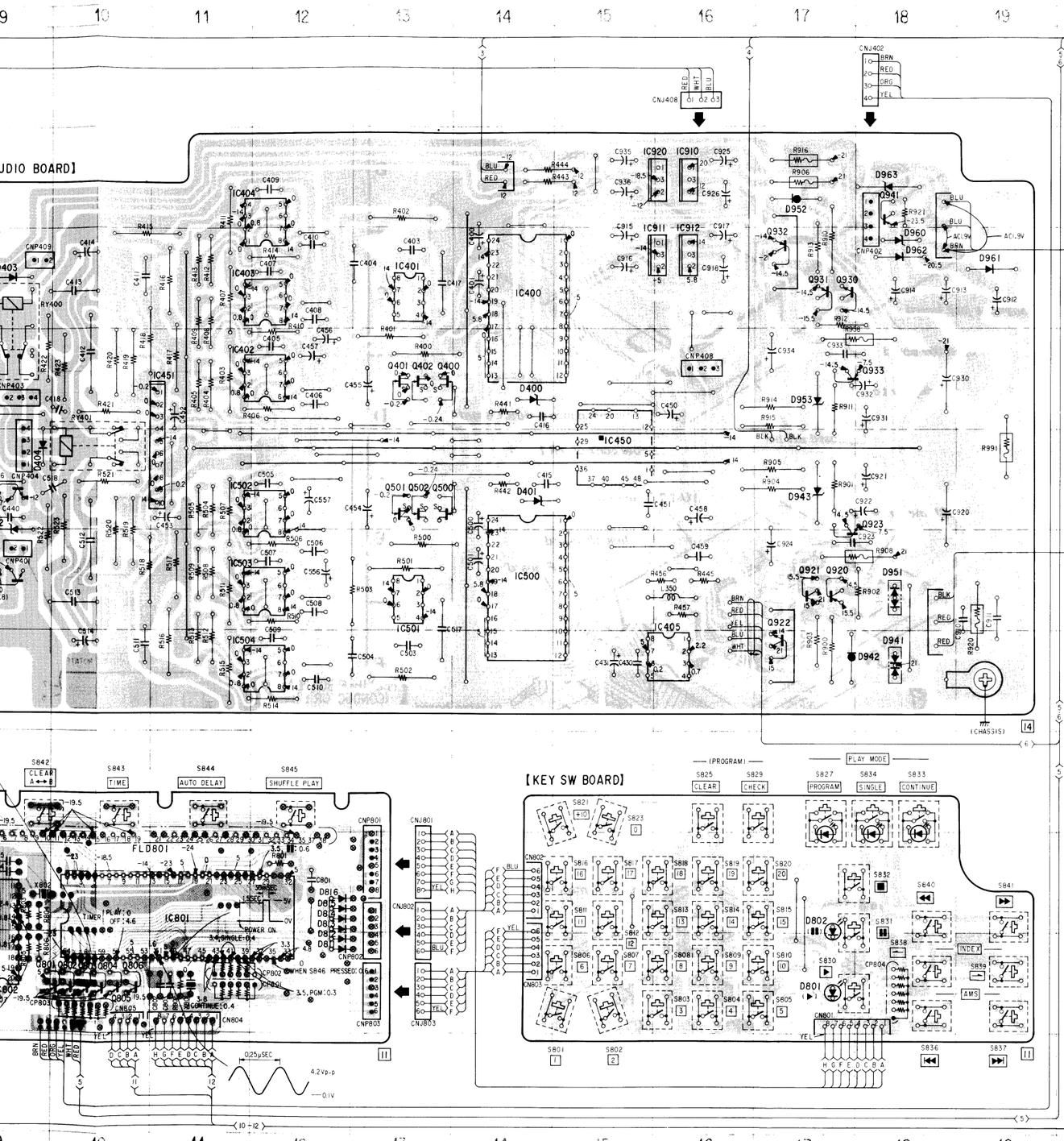
- See page 51 for Semiconductor Lead Layouts.
- See page 25 for Circuit Board Location.
- See page 50 for notes.
- See page 48 for Power Supply section (AEP, UK, E Model).
- See page 25 for BU-1C section.

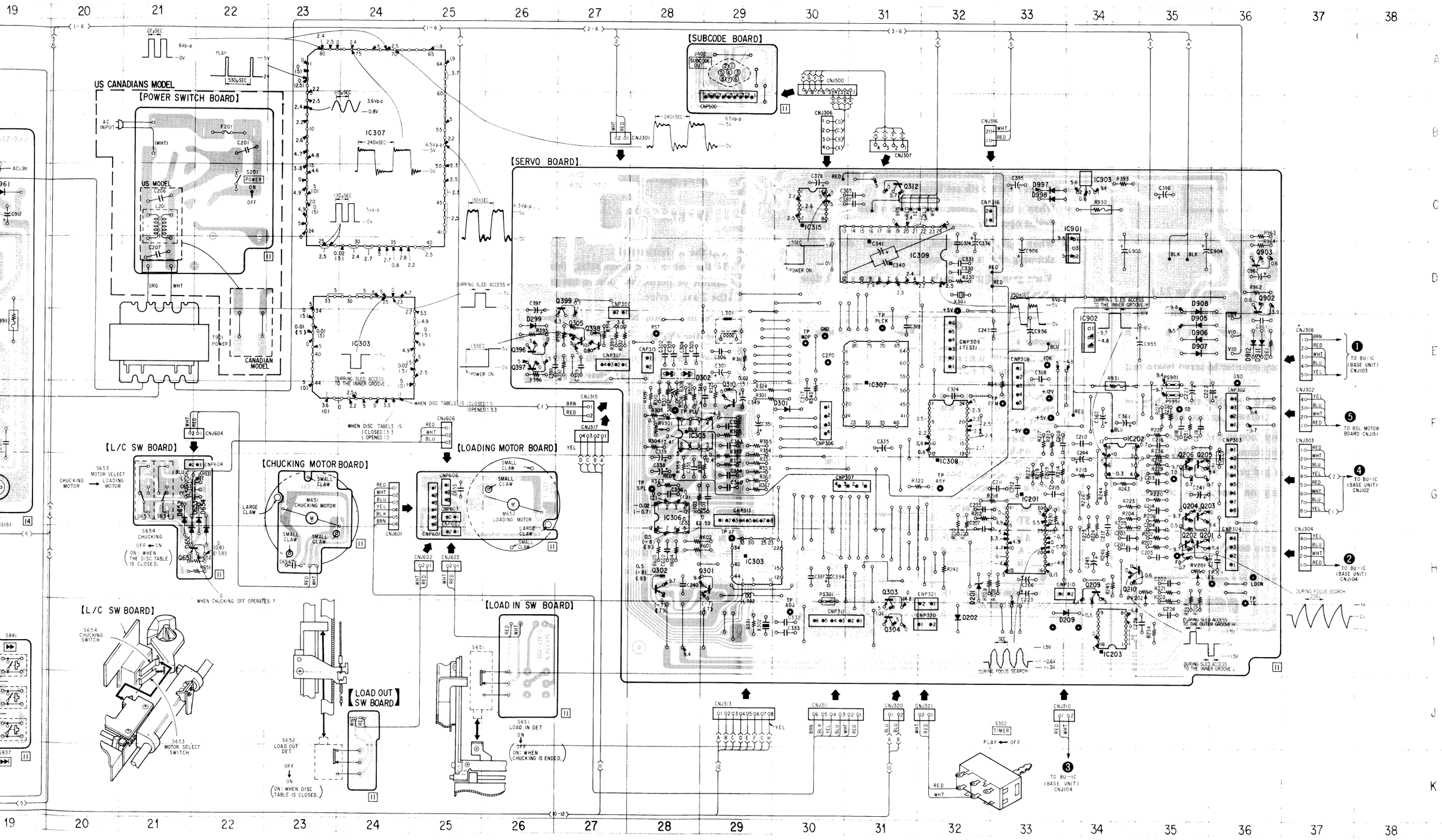
• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D201	H-32	IC451	E-11
D202	I-32	IC452	B-5
D209	I-34	IC500	F-14
D299	E-26	IC501	F-13
D301	F-30	IC502	E-12
D302	E-28	IC503	F-12
D350	G-3	IC504	G-12
D400	D-14	IC801	I-11
D401	E-14	IC802	J-9
D402	F-9	IC803	I-8
D403	C-9	IC901	D-34
D404	E-9	IC902	E-34
D410	B-4	IC903	C-34
D651	H-21	IC910	B-16
D654	H-22	IC911	C-16
D801	J-17	IC912	C-16
D802	I-17	IC920	B-16
D806	H-6		
D811	J-12	Q201	H-35
D812	J-12	Q202	H-35
D813	I-12	Q203	G-35
D814	I-12	Q204	G-35
D815	I-12	Q205	G-25
D816	I-12	Q206	G-35
D905	E-35	Q209	H-34
D906	E-35	Q210	H-34
D907	E-35	Q301	H-29
D908	D-35	Q302	H-28
D911	E-36	Q303	I-31
D912	E-36	Q304	I-31
D941	G-18	Q305	E-27
D942	G-17	Q310	F-29
D943	E-17	Q312	C-31
D951	F-18	Q396	E-26
D952	B-17	Q397	E-26
D953	D-17	Q398	E-27
D960	C-18	Q399	E-27
D961	C-19	Q400	D-13
D962	C-18	Q401	D-13
D963	B-18	Q402	D-13
D997	C-33	Q410	F-9
D998	C-33	Q411	E-9
		Q500	E-13
IC201	H-33	Q501	E-13
IC202	G-34	Q502	E-13
IC203	I-34	Q651	H-22
IC303	H-29	Q801	J-9
IC305	F-28	Q802	J-10
IC306	G-28	Q803	J-10
IC307	E-31	Q804	J-10
IC308	F-32	Q805	J-10
IC309	D-31	Q806	J-10
		Q902	D-36
		Q903	D-36
IC315	C-30	Q920	F-17
IC350	G-2	Q921	F-17
IC400	C-14	Q922	G-17
IC401	C-13	Q923	E-17
IC402	D-12	Q930	C-17
IC403	C-12	Q931	C-17
IC404	B-12	Q932	C-17
IC405	G-16	Q933	D-17
IC450	E-15	Q941	B-18



CDP-502ESII/620ESII


[AUDIO BOARD]
IC400
IC401
IC402
IC403
IC404
IC451
IC500
IC501
IC502
IC503
IC504
IC405
IC450
Q400
Q401
Q402
Q501
Q502
Q503
Q920
Q921
Q922
Q923
Q930
Q931
Q932
Q933
Q941
D400
D401
D451
D500
D501
D502
D503
D920
D921
D922
D923
D930
D931
D932
D933
D940
D941
D942
D943
D950
D951
D952
D953
D960
D961
D962
D963
CNJ402
CNJ408
CNP408
CNP409
CNP410
CNP403
CNP404
RY400
[KEY SW BOARD]
S801
S802
S803
S804
S805
S806
S807
S808
S809
S810
S811
S812
S813
S814
S815
S816
S817
S818
S819
S820
S821
S823
S825 CLEAR
S827 PROGRAM
S829 CHECK
S831
S832
S833 CONTINUE
S834 SINGLE
S836
S837
S838
S839
S840
S841
D801
D802
CP804
CNJ803
CNJ802
CNJ801
CNP802
CNP803
CNP804
CNP805
[FLD BOARD]
FLD801
IC801
S842 CLEAR A↔B
S843 TIME
S844 AUTO DELAY
S845 SHUFFLE PLAY
D801
D802
D803
D804
D805
D806
D807
D808
D809
D810
D811
D812
D813
D814
D815
D816
CNP801
CNP802
CNP803
CNJ801
CNP804
CNP805
CNJ804
CNJ805
X801
R801
C801
C802
C803
C804
C805
C806
C807
C808
C809
C810
C811
C812
C813
C814
C815
C816
C817
C818
C819
C820
C821
C822
C823
C824
C825
C826
C827
C828
C829
C830
C831
C832
C833
C834
C835
C836
C837
C838
C839
C840


US CANADIANS MODEL
【POWER SWITCH BOARD】
US MODEL
CANADIAN MODEL
【SUBCODE BOARD】
【SERVO BOARD】
【L/C SW BOARD】
【CHUCKING MOTOR BOARD】
【LOADING MOTOR BOARD】
【LOAD IN SW BOARD】
【LOAD OUT SW BOARD】
IC307
IC303
IC309
IC315
IC305
IC306
IC901
IC902
IC903
IC201
IC202
IC203
IC308
TO BU-IC (BASE UNIT) CNJ103
TO BU-IC (BASE UNIT) CNJ102
TO BU-IC (BASE UNIT) CNJ104
TO BSL MOTOR BOARD CNJ151
TO BU-IC (BASE UNIT) CNJ104
DURING FOCUS SEARCH
DURING SLED ACCESS TO THE INNER GROOVE
DURING SLED ACCESS TO THE OUTER GROOVE
WHEN DISC TABLE IS CLOSED : 0 OPENED : 3.3
WHEN CHUCKING OFF OPERATES ?
S651 LOAD IN DET ON OFF (ON: WHEN CHUCKING IS ENDED.)
S652 LOAD OUT DET OFF ON (ON: WHEN DISC TABLE IS CLOSED.)
S653 MOTOR SELECT SWITCH
S654 CHUCKING SWITCH
S654 CHUCKING OFF ON (ON: WHEN THE DISC TABLE IS CLOSED.)
S653 MOTOR SELECT LOADING MOTOR CHUCKING MOTOR
S302 TIMER PLAY OFF
POWER ON
TO BU-IC (BASE UNIT) CNJ104

• See page 50 for notes.

• See page 48 for Power Supply section (AEP, UK, E Model).

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A B C D E F G H I J

【RF BOARD】

【SERVO BOARD】

【SUBCODE BOARD】

【L/C SW BOARD】

【LOADING MOTOR BOARD】

【KEY BOARD SW BOARD】

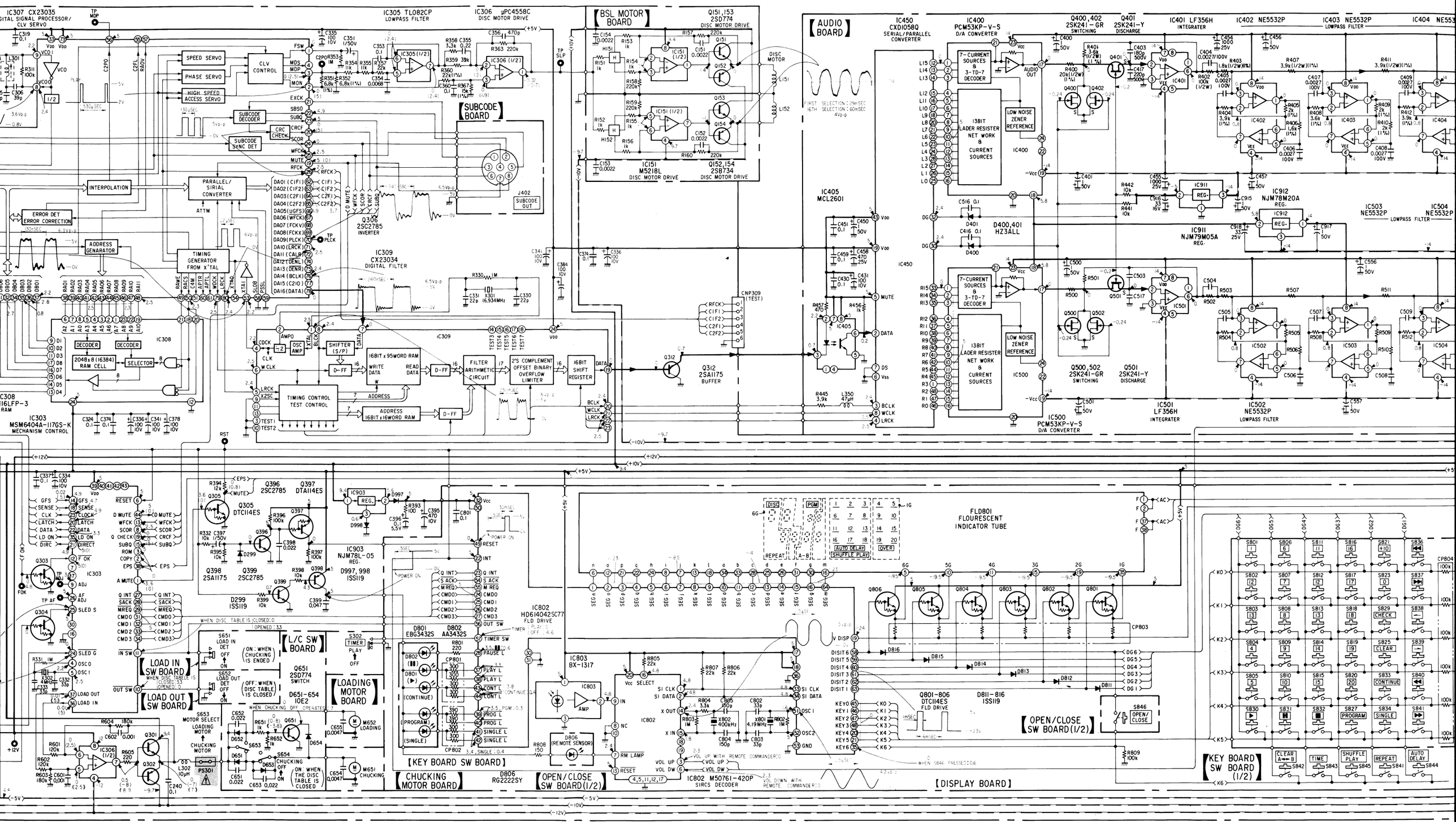
【CHUCKING MOTOR BOARD】

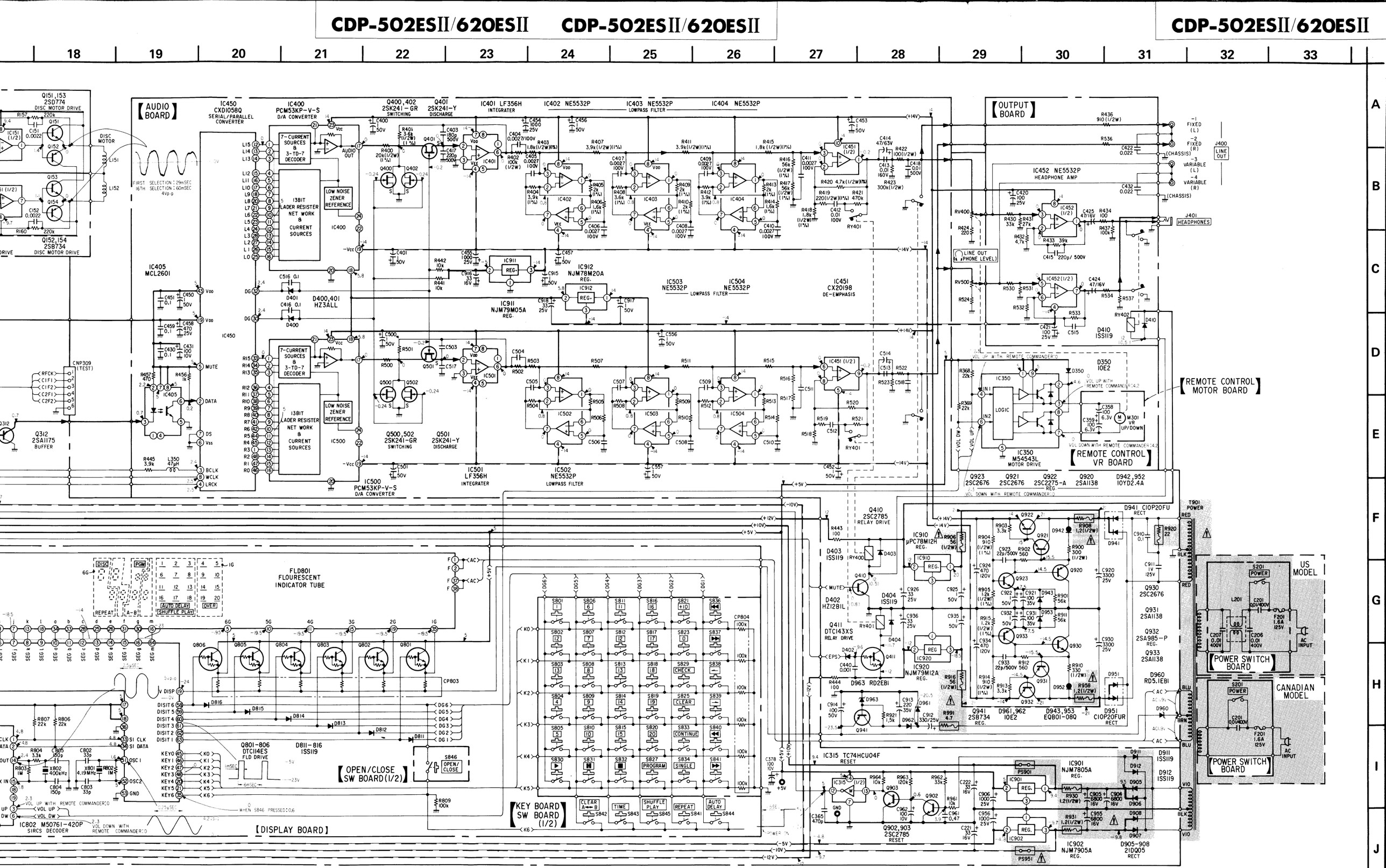
【OPEN/CLOSE SW BOARD(1/2)】

【LOAD IN SW BOARD】

【LOAD OUT SW BOARD】

OPTICAL PICK-UP BLOCK


IC307 CX23035
DIGITAL SIGNAL PROCESSOR/ CLV SERVO
IC305 TL082CP
LOWPASS FILTER
IC306 μPC4558C
DISC MOTOR DRIVE
【BSL MOTOR BOARD】
Q151,153 2SD774
DISC MOTOR DRIVE
【SUBCODE BOARD】
【AUDIO BOARD】
IC450 CXD1058Q
SERIAL/PARALLEL CONVERTER
IC400 PCM53KP-V-S
D/A CONVERTER
Q400,402 2SK241-GR
SWITCHING
Q401 2SK241-Y
DISCHARGE
IC401 LF356H
INTEGRATOR
IC402 NE5532P
IC403 NE5532P
LOWPASS FILTER
IC404 NE553
SPEED SERVO
PHASE SERVO
HIGH SPEED ACCESS SERVO
CLV CONTROL
SUBCODE DECODER
CRC CHECK
SUBCODE SYNC DET
INTERPOLATION
PARALLEL/ SIRIAL CONVERTER
ERROR DET ERROR CORRECTION
ADDRESS GENERATOR
TIMING GENERATOR FROM X'TAL
IC309 CX23034
DIGITAL FILTER
IC308
DECODER
2048x8 (16384) RAM CELL
SELECTOR
IC303 MSM6404A-117GS-K
MECHANISM CONTROL
IC306 NJM4558D
Q308 2SC2785
INVERTER
J402 SUBCODE OUT
IC405 MCL2601
D400,401 HZ3ALL
IC450
IC500 PCM53KP-V-S
D/A CONVERTER
IC501 LF356H
INTEGRATOR
IC502 NE5532P
LOWPASS FILTER
IC503 NE5532P
IC504 NE5532P
LOWPASS FILTER
IC911 NJM79M05A
REG.
IC912 NJM78M20A
REG.
7-CURRENT SOURCES & 3-TO-7 DECODER
13BIT LADER RESISTER NET WORK & CURRENT SOURCES
LOW NOISE ZENER REFERENCE
Q500,502 2SK241-GR
SWITCHING
Q501 2SK241-Y
DISCHARGE
CNP309 (TEST)
Q312 2SA1175
BUFFER
IC903 NJM78L-05
REG.
D997,998 ISS119
D299 ISS119
Q305 DTC114ES
Q396 2SC2785
Q397 DTA114ES
Q398 2SA1175
Q399 2SC2785
IC802 HD6414042SC77
FLD DRIVE
IC803 BX-1317
IC802 M50761-420P
SIRCS DECODER
FLD801 FLOURESCENT INDICATOR TUBE
Q801-806 DTC114ES
FLD DRIVE
D811-816 ISS119
【LOAD IN SW BOARD】
【LOAD OUT SW BOARD】
【L/C SW BOARD】
【LOADING MOTOR BOARD】
【CHUCKING MOTOR BOARD】
【KEY BOARD SW BOARD】
【OPEN/CLOSE SW BOARD(1/2)】
【OPEN/CLOSE SW BOARD(2/2)】
【DISPLAY BOARD】
【KEY BOARD SW BOARD (1/2)】
Q651 2SD774
SWITCH
D651-654 10E2
Q301 DTC114ES
Q303 DTC114ES
Q304 DTC114ES
D802 EBG3432S
D801 AA3432S
D806 RG2222SY
Q312 2SA1175
BUFFER
Q801-806 DTC114ES
FLD DRIVE
D811-816 ISS119
IC802 M50761-420P
SIRCS DECODER
IC803 BX-1317
IC903 NJM78L-05
REG.
D997,998 ISS119
D299 ISS119
Q305 DTC114ES
Q396 2SC2785
Q397 DTA114ES
Q398 2SA1175
Q399 2SC2785
IC308
IC303 MSM6404A-117GS-K
MECHANISM CONTROL
IC309 CX23034
DIGITAL FILTER
IC306 NJM4558D
Q308 2SC2785
INVERTER
J402 SUBCODE OUT
IC405 MCL2601
D400,401 HZ3ALL
IC450
IC500 PCM53KP-V-S
D/A CONVERTER
IC501 LF356H
INTEGRATOR
IC502 NE5532P
LOWPASS FILTER
IC503 NE5532P
IC504 NE5532P
LOWPASS FILTER
IC911 NJM79M05A
REG.
IC912 NJM78M20A
REG.
7-CURRENT SOURCES & 3-TO-7 DECODER
13BIT LADER RESISTER NET WORK & CURRENT SOURCES
LOW NOISE ZENER REFERENCE
Q500,502 2SK241-GR
SWITCHING
Q501 2SK241-Y
DISCHARGE
CNP309 (TEST)
Q312 2SA1175
BUFFER
IC903 NJM78L-05
REG.
D997,998 ISS119
D299 ISS119
Q305 DTC114ES
Q396 2SC2785
Q397 DTA114ES
Q398 2SA1175
Q399 2SC2785
IC802 HD6414042SC77
FLD DRIVE
IC803 BX-1317
IC802 M50761-420P
SIRCS DECODER
FLD801 FLOURESCENT INDICATOR TUBE
Q801-806 DTC114ES
FLD DRIVE
D811-816 ISS119
【LOAD IN SW BOARD】
【LOAD OUT SW BOARD】
【L/C SW BOARD】
【LOADING MOTOR BOARD】
【CHUCKING MOTOR BOARD】
【KEY BOARD SW BOARD】
【OPEN/CLOSE SW BOARD(1/2)】
【OPEN/CLOSE SW BOARD(2/2)】
【DISPLAY BOARD】
【KEY BOARD SW BOARD (1/2)】
Q651 2SD774
SWITCH
D651-654 10E2
Q301 DTC114ES
Q303 DTC114ES
Q304 DTC114ES
D802 EBG3432S
D801 AA3432S
D806 RG2222SY

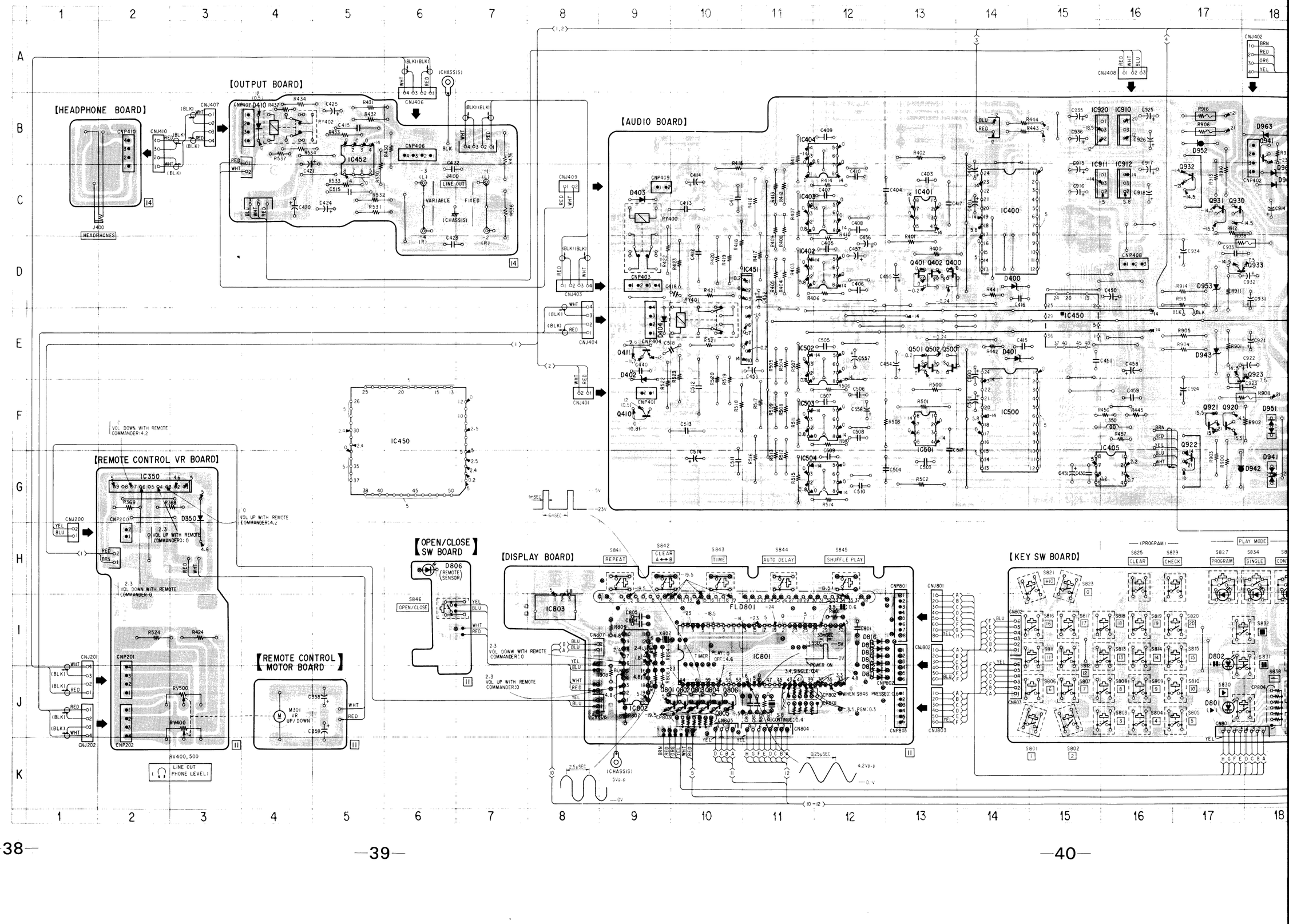

【AUDIO BOARD】
【OUTPUT BOARD】
【REMOTE CONTROL MOTOR BOARD】
【REMOTE CONTROL VR BOARD】
【DISPLAY BOARD】
【KEY BOARD SW BOARD (1/2)】
【OPEN/CLOSE SW BOARD(1/2)】
【POWER SWITCH BOARD】
IC450 CXD1058Q SERIAL/PARALLEL CONVERTER
IC400 PCM53KP-V-S D/A CONVERTER
IC500 PCM53KP-V-S D/A CONVERTER
IC501 LF356H INTEGRATER
IC502 NE5532P LOWPASS FILTER
IC503 NE5532P LOWPASS FILTER
IC504 NE5532P LOWPASS FILTER
IC451 CX20198 DE-EMPHASIS
IC452 NE5532P HEADPHONE AMP
IC405 MCL2601
IC911 NJM79M05A REG.
IC912 NJM78M20A REG.
IC910 μPC78M12H REG.
IC920 NJM79M12A REG.
IC315 TC74HCU04F RESET
IC350 M54543L MOTOR DRIVE
IC802 M50761-420P SIRCS DECODER
IC901 NJM7805A REG.
IC902 NJM7905A REG.
FLD801 FLOURESCENT INDICATOR TUBE
DISC MOTOR
DISC MOTOR DRIVE
J400 LINE OUT
J401 HEADPHONES
LINE OUT (PHONE LEVEL)
D400,401 HZ3ALL
D410 ISS119
D941 CIOP20FU RECT
D951 CIOP20FUR RECT
D942,952 10YD2.4A
D960 RD5.1EBI
D961,962 10E2
D943,953 EQB01-08Q
D941 2SB734 REG.
Q930 2SC2676
Q931 2SA1138
Q932 2SA985-P REG.
Q933 2SA1138
Q923 2SC2676
Q921 2SC2676
Q922 2SC2275-A REG.
Q920 2SA1138
Q312 2SA1175 BUFFER
Q410 2SC2785 RELAY DRIVE
Q411 DTC143XS RELAY DRIVE
Q902,903 2SC2785 RESET
Q401 2SK241-Y DISCHARGE
Q400,402 2SK241-GR SWITCHING
Q501 2SK241-Y DISCHARGE
Q500,502 2SK241-GR SWITCHING
Q801-806 DTC114ES FLD DRIVE
D811-816 ISS119
D402 HZ12B1L
D403 ISS119
D404 ISS119
D963 RD2EB1
D941 CIOP20FU RECT
D905-908 2ID005 RECT
D911 ISS119
D912 ISS119
T901 POWER
US MODEL
CANADIAN MODEL
AC INPUT
FIXED (L)
FIXED (R)
VARIABLE (L)
VARIABLE (R)
(CHASSIS)
REPEAT
A-B
AUTO DELAY
SHUFFLE PLAY
OVER
CLEAR A↔B
TIME
SHUFFLE PLAY
REPEAT
AUTO DELAY
OPEN/ CLOSE
PROGRAM
SINGLE
CONTINUE
CLEAR
CHECK
VOL UP WITH REMOTE COMMANDER:0
VOL DOWN WITH REMOTE COMMANDER:0
VOL UP
VOL DW
FIRST SELECTION : 29mSEC
16TH SELECTION : 66mSEC
4Vp-p
WHEN S846 PRESSED:0.6
7-CURRENT SOURCES & 3-TO-7 DECODER
13BIT LADER RESISTER NET WORK & CURRENT SOURCES
LOW NOISE ZENER REFERENCE
CNP309 (TEST)
BCLK
WCLK
LRCK
SI CLK
SI DATA
OSC I
OSC 2
GND
MUTE
DATA
DS
Vss
DISC MOTOR
Q151 2SD774 DISC MOTOR DRIVE
Q152,154 2SB734 DISC MOTOR DRIVE
Q153 2SD774 DISC MOTOR DRIVE
Q151 2SA1175 BUFFER
Q152 2SA1175 BUFFER
Q154 2SA1175 BUFFER
Q806 Q805 Q804 Q803 Q802 Q801
D401 D400 D402 D403 D404 D410 D911 D912
D941 D942 D943 D951 D952 D960 D961 D962 D963
D905 D906 D907 D908
D811 D812 D813 D814 D815 D816
CP803 CP804
S846 OPEN/ CLOSE
S801 S802 S803 S804 S805 S806 S807 S808 S809 S810 S811 S812 S813 S814 S815 S816 S817 S818 S819 S820 S821 S823 S825 S827 S829 S831 S832 S833 S834 S836 S837 S838 S839 S840 S841 S842 S843 S845 S844
PS901 PS902
T901 POWER
RED BLK BLU BRN VIO
+14V +5V -5V -10V +10V -14V +12V -12V
KEY0 KEY1 KEY2 KEY3 KEY4 KEY5 KEY6
K0 K1 K2 K3 K4 K5 K6
DG1 DG2 DG3 DG4 DG5 DG6
DISIT1 DISIT2 DISIT3 DISIT4 DISIT5 DISIT6
SEG a SEG b SEG c SEG d SEG e SEG f SEG g SEG h SEG i SEG j SEG k SEG l SEG m
RFCK C1F1 C1F2 C2F1 C2F2
LI51 LI52
RY401 RY402
RY400
X801 4.19MHz
X802 400kHz
L350 47μH
L201
F201 1.6A 125V
F201 1.6A 125V

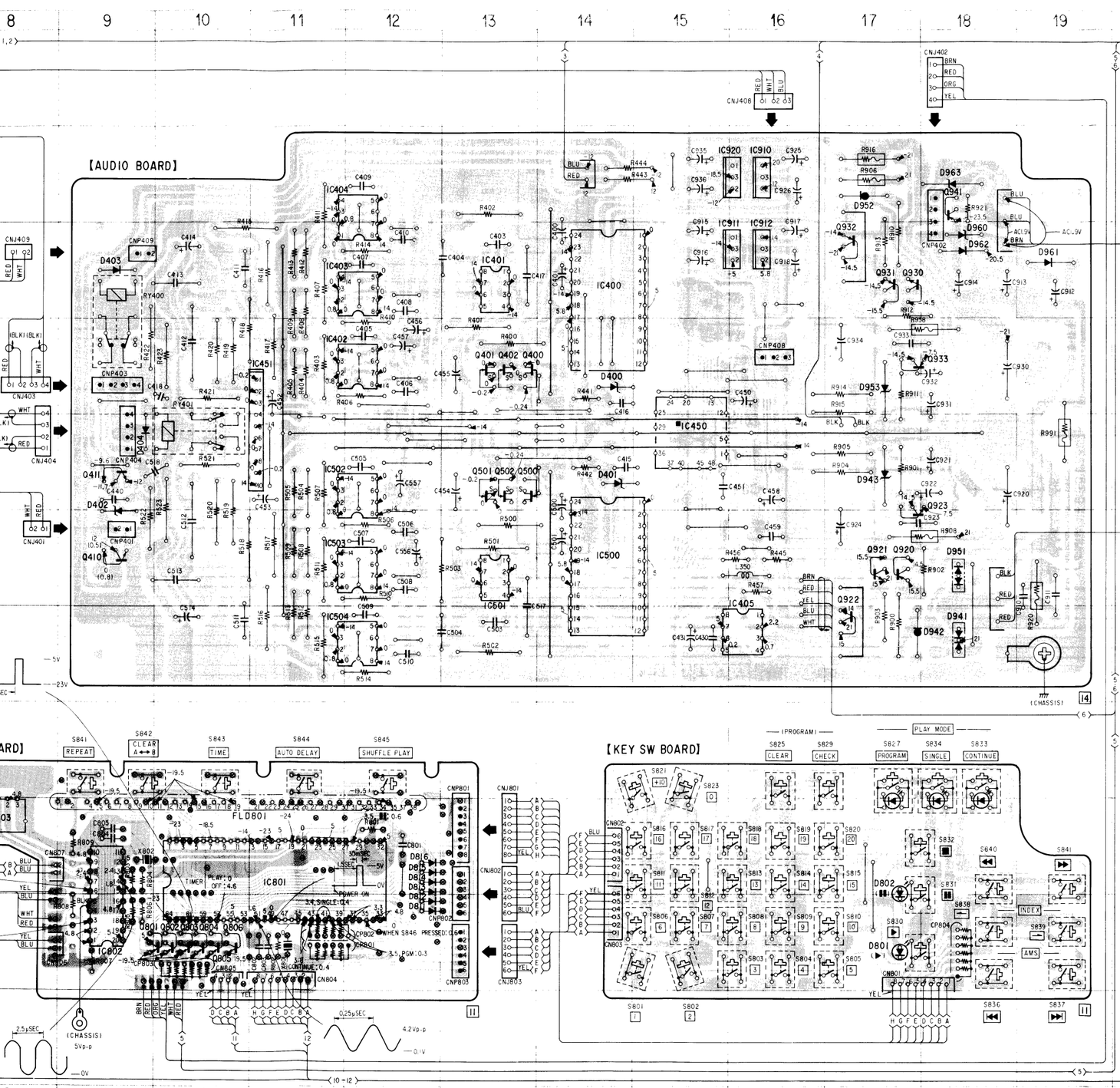
4-4. CDP-552ESDII/650ESDII MOUNTING DIAGRAM

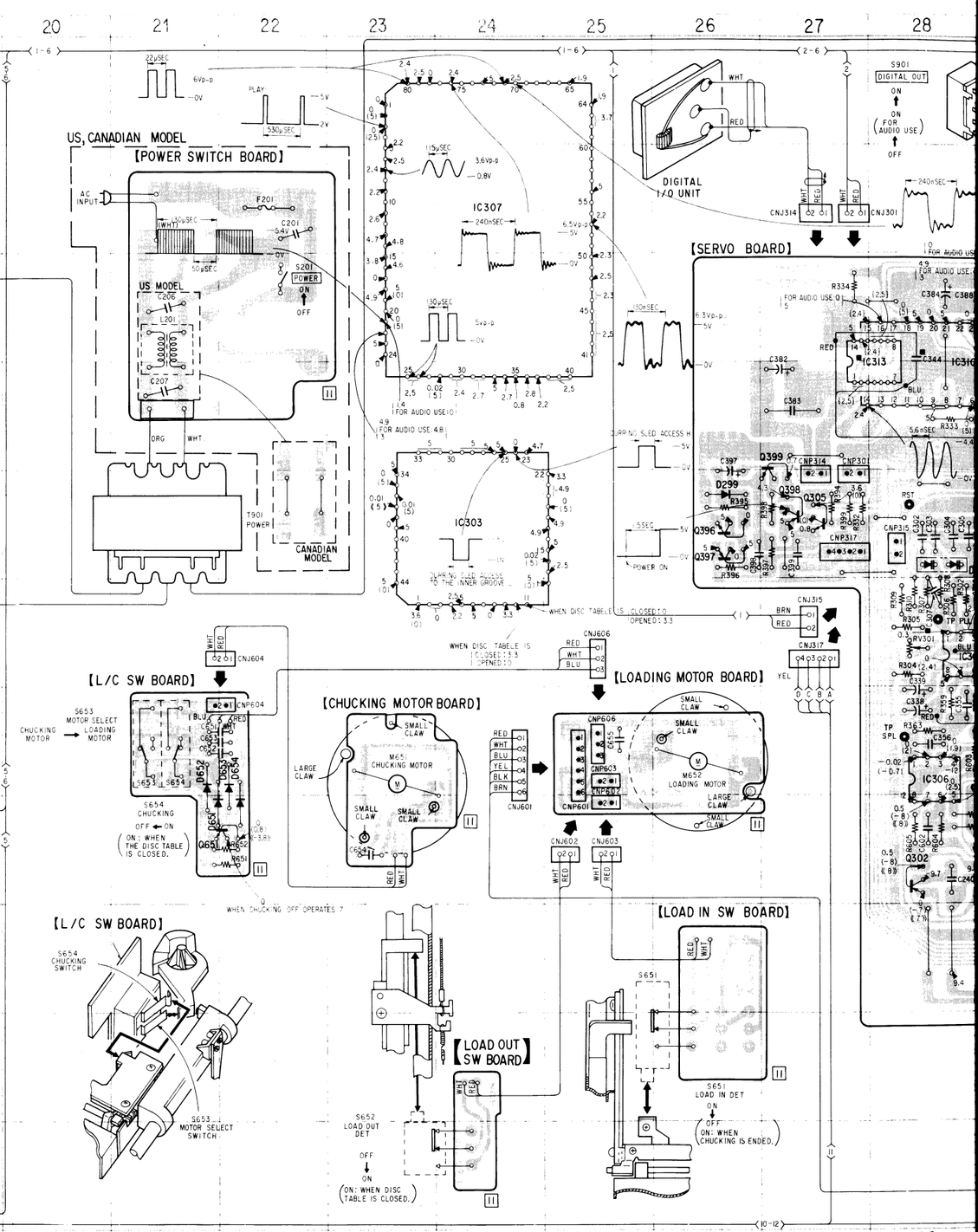
- See page 51 for Semiconductor Lead Layouts.
- See page 25 for Circuit Board Location.
- See page 50 for notes.
- See page 48 for Power Supply section (AEP, UK, E Model).
- See page 25 for BU-1C section.

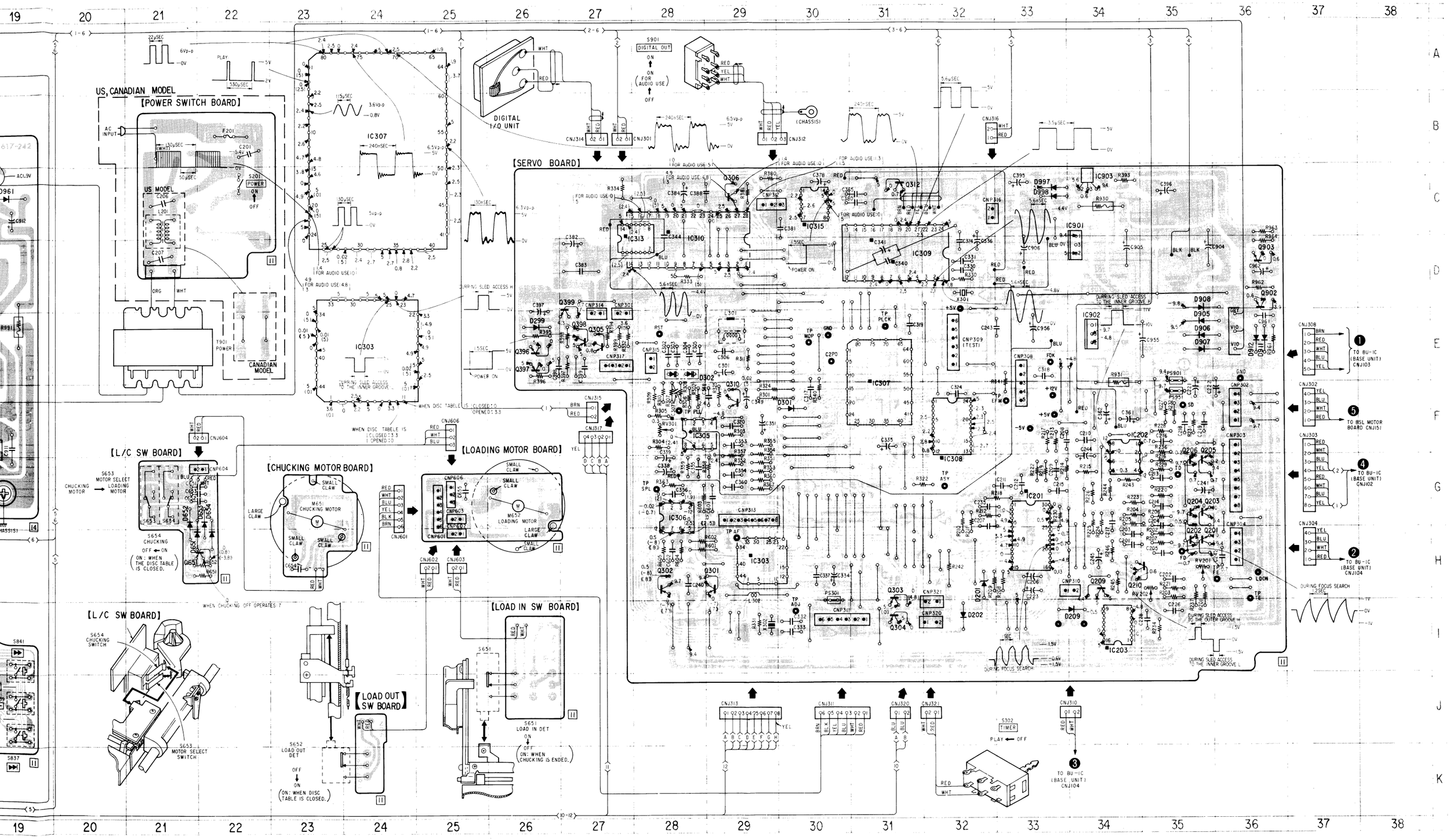
• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D201	H-32	IC451	E-11
D202	I-32	IC452	B-5
D209	I-34	IC500	F-14
D299	E-26	IC501	F-13
D301	F-30	IC502	E-12
D302	E-28	IC503	F-12
D350	G-3	IC504	G-12
D400	D-14	IC801	I-11
D401	E-14	IC802	J-9
D402	F-9	IC803	I-8
D403	C-9	IC901	D-34
D404	E-9	IC902	E-34
D410	B-4	IC903	C-34
D651	H-21	IC910	B-16
D652	G-21	IC911	C-16
D653	G-22	IC912	C-16
D654	H-22	IC920	B-16
D801	J-17		
D802	I-17	Q201	H-35
D806	H-6	Q202	H-35
D811	J-12	Q203	G-35
D812	J-12	Q204	G-35
D813	I-12	Q205	G-25
D814	I-12	Q206	G-35
D815	I-12	Q209	H-34
D816	I-12	Q210	H-34
D905	E-35	Q301	H-29
D906	E-35	Q302	H-28
D907	E-35	Q303	I-31
D908	D-35	Q304	I-31
D911	E-36	Q305	E-27
D912	E-36	Q306	C-29
D941	G-18	Q310	F-29
D942	G-17	Q312	C-31
D943	E-17	Q396	E-26
D951	F-18	Q397	E-26
D952	B-17	Q398	E-27
D953	D-17	Q399	E-27
D960	C-18	Q400	D-13
D961	C-19	Q401	D-13
D962	C-18	Q402	D-13
D963	B-18	Q410	F-9
D997	C-33	Q411	E-9
D998	C-33	Q500	E-13
		Q501	E-13
IC201	H-33	Q502	E-13
IC202	G-34	Q651	H-22
IC203	I-34	Q801	J-9
IC303	H-29	Q802	J-10
IC305	F-28	Q803	J-10
IC306	G-28	Q804	J-10
IC307	E-31	Q805	J-10
IC308	F-32	Q806	J-10
IC309	D-31	Q902	D-36
IC310	D-28	Q903	D-36
IC313	D-28	Q920	F-17
IC315	C-30	Q921	F-17
IC350	G-2	Q922	G-17
IC400	C-14	Q923	E-17
IC401	C-13	Q930	C-17
IC402	D-12	Q931	C-17
IC403	C-12	Q932	C-17
IC404	B-12	Q933	D-17
IC405	G-16	Q941	B-18
IC450	E-15		




【AUDIO BOARD】
【KEY SW BOARD】
S841 REPEAT
S842 CLEAR A↔B
S843 TIME
S844 AUTO DELAY
S845 SHUFFLE PLAY
S821
S823
S825 CLEAR
S829 CHECK
S827 PROGRAM
S834 SINGLE
S833 CONTINUE
(PROGRAM)
PLAY MODE
S801
S802
S830
S831
S832
S836
S837
S838
S839
S840
INDEX
AMS
FLD801
IC801
IC802
IC400
IC401
IC404
IC405
IC450
IC500
IC501
IC502
IC503
IC504
IC601
IC910
IC911
IC912
IC920
D400
D401
D402
D403
D941
D943
D951
D952
D961
D962
D963
Q400
Q401
Q402
Q410
Q920
Q921
Q922
Q923
Q930
Q931
Q932
Q933
RY400
CNJ401
CNJ402
CNJ403
CNJ404
CNJ408
CNJ409
CNJ801
CNJ802
CNJ803
CNP401
CNP402
CNP403
CNP404
CNP408
CNP409
CNP801
CNP802
CNP803
CN801
CN802
CN803
CN804
CN805
CN807
(CHASSIS)
5Vp-p
2.5μSEC
4.2Vp-p
0.25μSEC


US, CANADIAN MODEL
【POWER SWITCH BOARD】
AC INPUT
F201
C201
S201 POWER
ON
OFF
US MODEL
C206
L201
C207
T901 POWER
CANADIAN MODEL
ORG
WHT
【L/C SW BOARD】
S653 MOTOR SELECT
CHUCKING MOTOR
LOADING MOTOR
S654 CHUCKING
OFF ← ON
(ON: WHEN THE DISC TABLE IS CLOSED.)
【CHUCKING MOTOR BOARD】
M651 CHUCKING MOTOR
M652 LOADING MOTOR
LARGE CLAW
SMALL CLAW
【LOADING MOTOR BOARD】
WHEN CHUCKING OFF OPERATES ?
【L/C SW BOARD】
S654 CHUCKING SWITCH
S653 MOTOR SELECT SWITCH
【LOAD OUT SW BOARD】
S652 LOAD OUT DET
OFF
ON
(ON: WHEN DISC TABLE IS CLOSED.)
【LOAD IN SW BOARD】
S651 LOAD IN DET
ON
OFF
(ON: WHEN CHUCKING IS ENDED.)
DIGITAL I/O UNIT
S901 DIGITAL OUT
ON
ON (FOR AUDIO USE)
OFF
【SERVO BOARD】
IC303
IC307
IC313
IC306
CNJ301
CNJ314
CNJ315
CNJ317
CNJ601
CNJ602
CNJ603
CNJ604
CNJ606
CNP314
CNP315
CNP317
WHEN DISC TABLE IS CLOSED:1.0 OPENED:3.3
WHEN DISC TABLE IS CLOSED:3.3 OPENED:1.0


US, CANADIAN MODEL
【POWER SWITCH BOARD】
AC INPUT
F201
C201
S201 POWER ON OFF
US MODEL
C206
L201
C207
T901 POWER
CANADIAN MODEL
IC307
IC303
DURING SLED ACCESS TO THE INNER GROOVE
WHEN DISC TABLE IS CLOSED: 0 OPENED: 3.3
DIGITAL I/O UNIT
S901 DIGITAL OUT ON ON (FOR AUDIO USE) OFF
(CHASSIS)
【SERVO BOARD】
【L/C SW BOARD】
S653 MOTOR SELECT CHUCKING MOTOR LOADING MOTOR
S654 CHUCKING OFF ← ON (ON: WHEN THE DISC TABLE IS CLOSED.)
WHEN CHUCKING OFF OPERATES ?
【CHUCKING MOTOR BOARD】
M651 CHUCKING MOTOR
LARGE CLAW
SMALL CLAW
【LOADING MOTOR BOARD】
M652 LOADING MOTOR
【L/C SW BOARD】
S654 CHUCKING SWITCH
S653 MOTOR SELECT SWITCH
【LOAD OUT SW BOARD】
S652 LOAD OUT DET OFF ON (ON: WHEN DISC TABLE IS CLOSED.)
【LOAD IN SW BOARD】
S651 LOAD IN DET ON OFF (ON: WHEN CHUCKING IS ENDED.)
S302 TIMER PLAY ← OFF
TO BU-IC (BASE UNIT) CNJ103
TO BSL MOTOR BOARD CNJ151
TO BU-IC (BASE UNIT) CNJ102
TO BU-IC (BASE UNIT) CNJ104
TO BU-IC (BASE UNIT) CNJ104
DURING FOCUS SEARCH
DURING SLED ACCESS TO THE OUTER GROOVE H
DURING SLED ACCESS TO THE INNER GROOVE L

• See page 50 for notes. • See page 48 for Power Supply section (AEP, UK, E Model).

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A B C D E F G H I J

【RF BOARD】

【SERVO BOARD】

IC101 RF AMP/ SIGNAL PROCESSOR

IC001 LASER ON CIRCUIT

IC102 DROPOUT DETECTION CIRCUIT

IC201 CX20108 FOCUS/TRACKING/ SLED SERVO

IC202 NJM4558D-FA SLED COIL DRIVE

IC203 HD14053BFP SWITCH

IC303 MSM6404A-117GS-K MECHANISM CONTROL

IC305 TL082CP PLL

IC306 μPC4558C LOADING DRIVE

IC307 CX23035 DIGITAL SIGNAL PROCESSOR/ CLV SERVO

IC308 HM6116LFP-3 RAM

IC309 CX23034 DIGITAL FILTER

IC310 CXD1075P DIGITAL AUDIO SIGNAL / DIGITAL INTERFACE FORMAT CONVERTER

IC802 HD614042SC77 FLD DRIVE

IC803 BX-1317

IC903 NJM78L-05 REG.

D301 ISS119

D302 KV1236Z

Q310 DTC114ES SWITCH

Q303 DTC114ES INVERTER

Q304 DTC114ES INVERTER

Q305 DTC114ES

Q201 2SD774 Q202 2SB734 FOCUS COIL DRIVE

Q203 2SD774 Q204 2SB734 TRACKING COIL DRIVE

Q205 2SD774 Q206 2SB734 SLED COIL DRIVE

Q210 2SC2001-L SLED GAIN SWITCH

Q209 2SA1175 INVERTER

Q301 2SD774 Q302 2SB734 — LOADING DRIVE —

Q396 2SC2785

Q397 DTA114ES

Q398 2SA1175

Q399 2SC2785

D801 EBG3432S D802 AA3432S

D806 RG2222SY

CP801 CP802

OPTICAL PICK-UP BLOCK ⚠

TRACKING COIL 2-AXIS DEVICE FOCUS COIL

RESISTANCE VALUE: APPROX. 8Ω

M53 SLED COIL

RESISTANCE VALUE: APPROX. 30Ω

SE51 SENSOR COIL

RESISTANCE VALUE: APPROX. 2kΩ

LASER DIODE

DETECTOR

【LOAD IN SW BOARD】

【LOAD OUT SW BOARD】

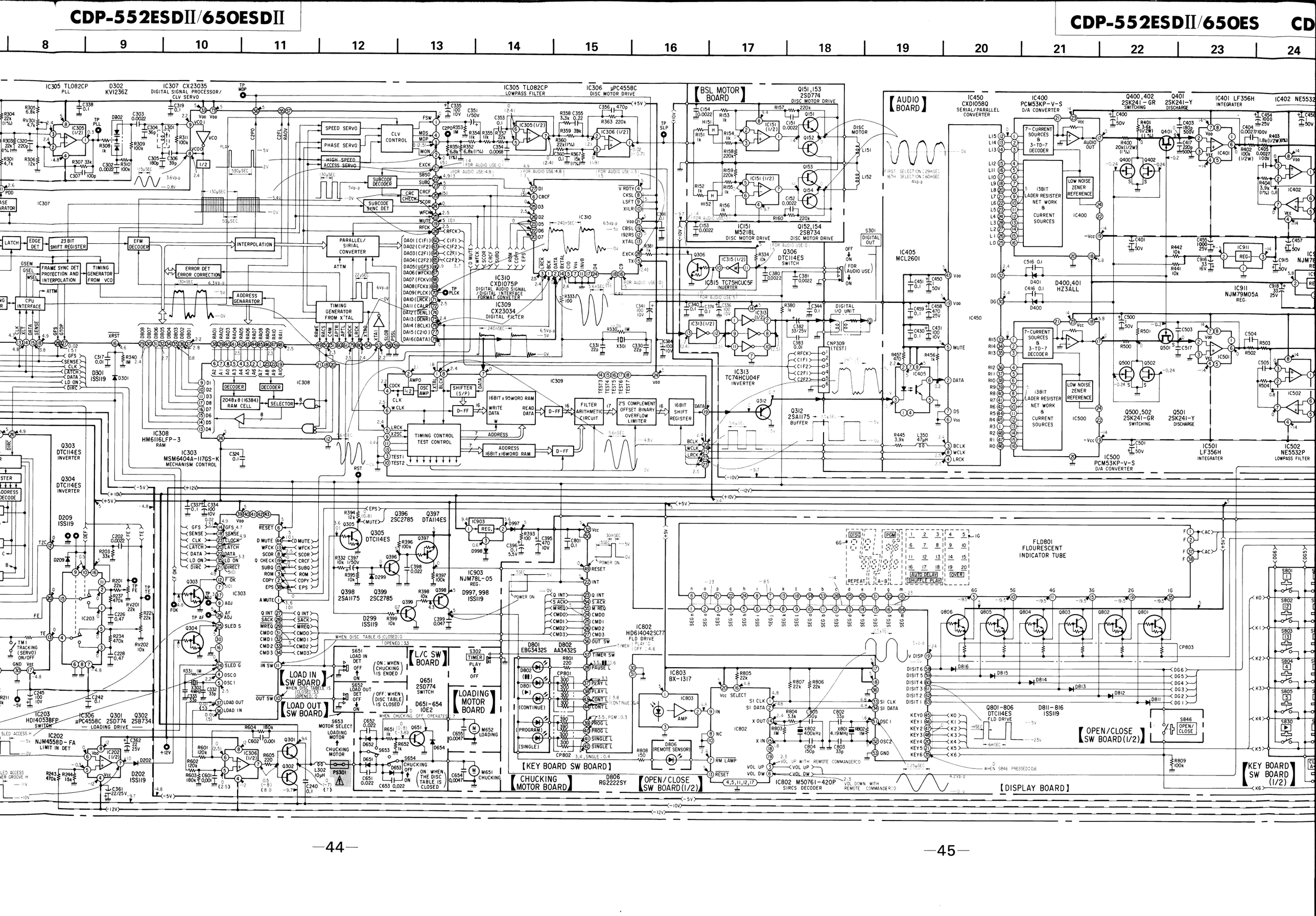
【L/C SW BOARD】

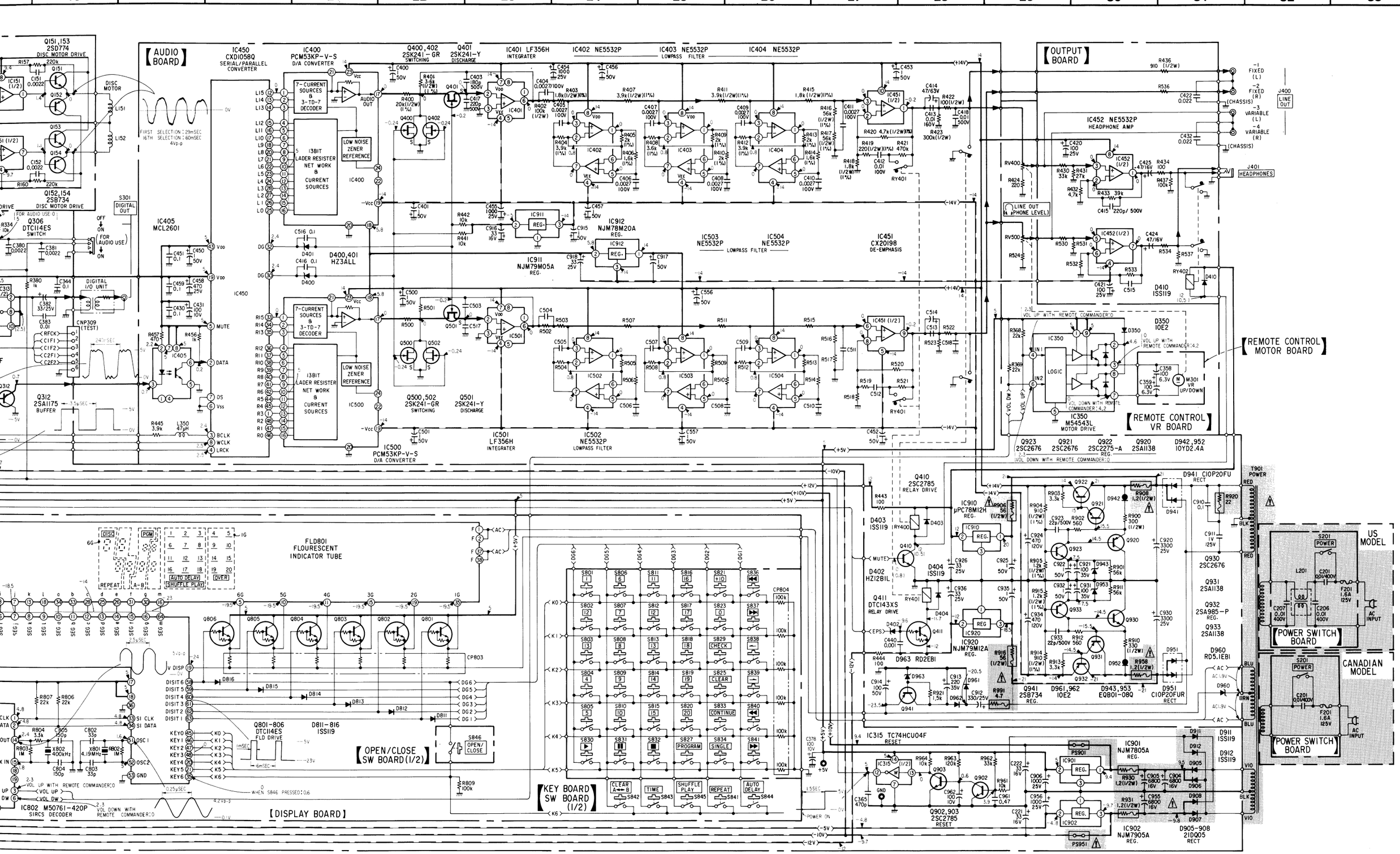
【LOADING MOTOR BOARD】

【KEY BOARD SW BOARD】

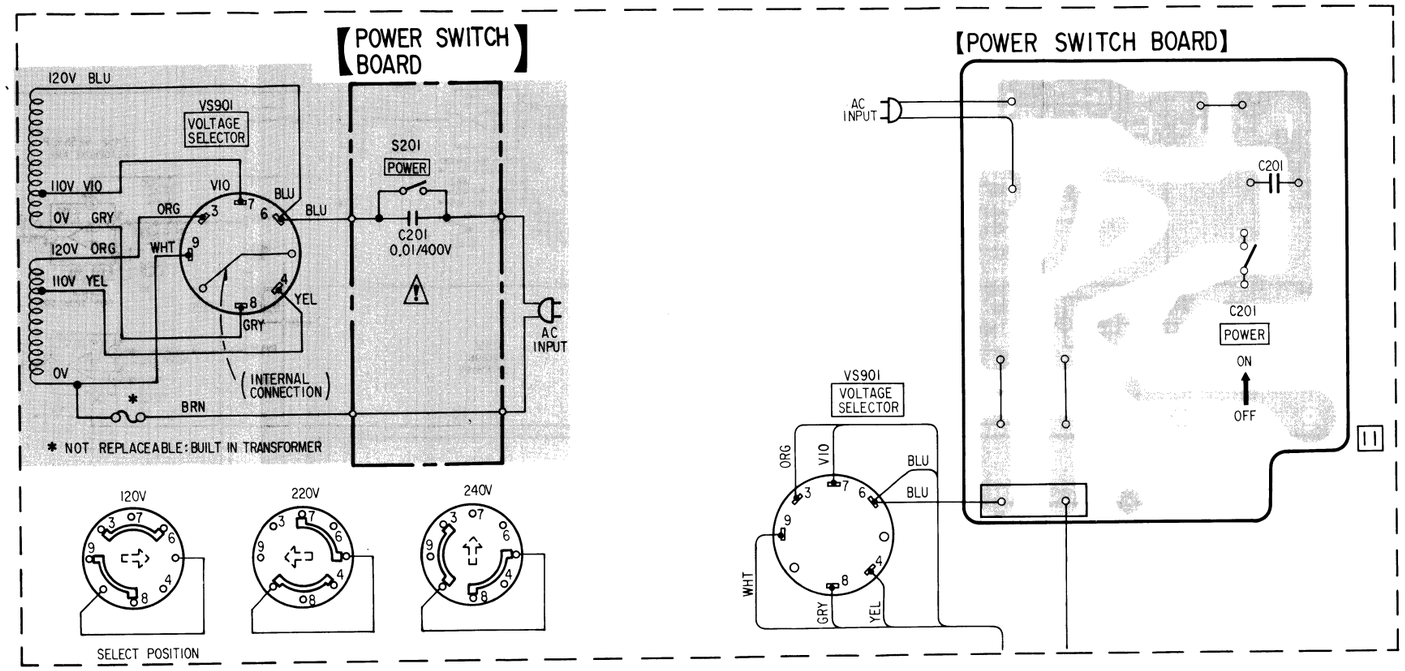
【CHUCKING MOTOR BOARD】

【OPEN/CLOSE SW BOARD(1/2)】

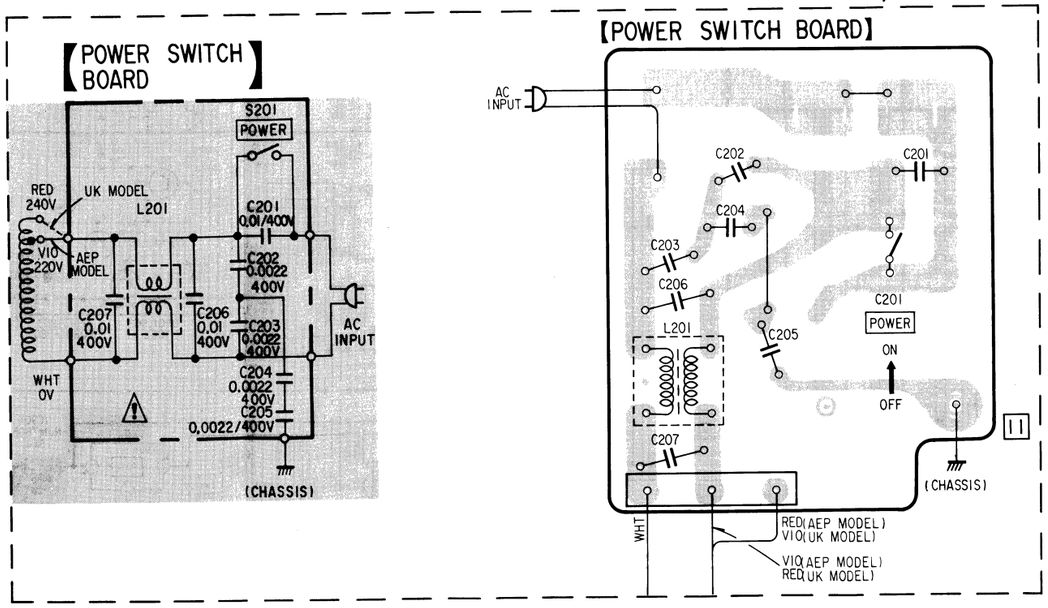

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
IC305 TL082CP PLL
D302 KV1236Z
IC307 CX23035 DIGITAL SIGNAL PROCESSOR/ CLV SERVO
IC305 TL082CP LOWPASS FILTER
IC306 μPC4558C DISC MOTOR DRIVE
【BSL MOTOR BOARD】
Q151,153 2SD774 DISC MOTOR DRIVE
Q151 Q152 Q153 Q154
DISC MOTOR
IC151 M5218L DISC MOTOR DRIVE
Q152,154 2SB734 DISC MOTOR DRIVE
【AUDIO BOARD】
IC450 CXD1058Q SERIAL/PARALLEL CONVERTER
IC400 PCM53KP-V-S D/A CONVERTER
Q400,402 2SK241-GR SWITCHING
Q401 2SK241-Y DISCHARGE
IC401 LF356H INTEGRATER
IC402 NE5532
IC405 MCL2601
IC500 PCM53KP-V-S D/A CONVERTER
Q500,502 2SK241-GR SWITCHING
Q501 2SK241-Y DISCHARGE
IC501 LF356H INTEGRATER
IC502 NE5532P LOWPASS FILTER
IC911 NJM79M05A REG.
D400,401 HZ3ALL
7-CURRENT SOURCES & 3-TO-7 DECODER
13BIT LADER RESISTER NET WORK & CURRENT SOURCES
LOW NOISE ZENER REFERENCE
AUDIO OUT
DIGITAL I/O UNIT
CNP309 (TEST)
S301 DIGITAL OUT
IC313 TC74HCU04F INVERTER
Q312 2SA1175 BUFFER
IC315 TC75HCUC5F INVERTER
Q306 DTC114ES SWITCH
SERVO
SPEED SERVO
PHASE SERVO
HIGH SPEED ACCESS SERVO
CLV CONTROL
SUBCODE DECODER
SUBCODE SYNC DET
CRC CHECK
INTERPOLATION
EFM DECODER
ERROR DET ERROR CORRECTION
PARALLEL/ SIRIAL CONVERTER
ADDRESS GENERATOR
TIMING GENERATOR FROM X'TAL
IC310 CXD1075P DIGITAL AUDIO SIGNAL / DIGITAL INTERFACE FORMAT CONVETER
IC309 CX23034 DIGITAL FILTER
16BIT x 95WORD RAM
16BIT x16WORD RAM
FILTER ARITHMETIC CIRCUIT
2'S COMPLEMENT OFFSET BINARY OVERFLOW LIMITER
16BIT SHIFT REGISTER
TIMING CONTROL TEST CONTROL
IC308 HM6116LFP-3 RAM
2048x8 (16384) RAM CELL
DECODER
SELECTOR
IC303 MSM6404A-117GS-K MECHANISM CONTROL
IC202 NJM4558D-FA LIMIT IN DET
IC203 HD14053BFP SWITCH
Q301 2SD774 — LOADING DRIVE
Q302 2SB734
Q303 DTC114ES INVERTER
Q304 DTC114ES INVERTER
Q305 DTC114ES
Q396 2SC2785
Q397 DTA114ES
Q398 2SA1175
Q399 2SC2785
IC903 NJM78L-05 REG.
D997, 998 1SS119
D299 1SS119
D209 1SS119
D202 1SS119
D301 1SS119
IC802 HD6414042SC77 FLD DRIVE
IC803 BX-1317
IC802 M50761-420P SIRCS DECODER
D801 EB63432S
D802 AA3432S
CP801
CP802
D806 RG2222SY
FLD801 FLOURESCENT INDICATOR TUBE
Q801-806 DTC114ES FLD DRIVE
D811-816 1SS119
D816 D815 D814 D813 D812 D811
CP803
S801 S802 S803 S804 S805 S830
S846 OPEN/ CLOSE
【L/C SW BOARD】
D651-654 1OE2
【LOADING MOTOR BOARD】
M652 LOADING
M651 CHUCKING
【LOAD IN SW BOARD】
【LOAD OUT SW BOARD】
【CHUCKING MOTOR BOARD】
【OPEN/CLOSE SW BOARD(1/2)】
【KEY BOARD SW BOARD】
【KEY BOARD SW BOARD (1/2)】
【DISPLAY BOARD】
S651 LOAD IN DET
S652 LOAD OUT DET
S653 MOTOR SELECT
S654 CHUCKING OFF
S302 TIMER
PS301
L302 10μH
L350 47μH
X301 33.8688MHz
X801 4.19MHz
X802 400kHz
TP MDP
TP PLL
TP SLP
TP PLCK
TP FE
TP AF
TM TRACKING (SERVO) ON/OFF
RST
XRST
+5V
+12V
-5V
-12V
+10V
-10V


【AUDIO BOARD】
IC450 CXD1058Q SERIAL/PARALLEL CONVERTER
IC400 PCM53KP-V-S D/A CONVERTER
IC405 MCL2601
IC500 PCM53KP-V-S D/A CONVERTER
IC501 LF356H INTEGRATER
IC502 NE5532P LOWPASS FILTER
IC503 NE5532P LOWPASS FILTER
IC504 NE5532P LOWPASS FILTER
IC451 CX20198 DE-EMPHASIS
IC911 NJM79M05A REG.
IC912 NJM78M20A REG.
Q400,402 2SK241-GR SWITCHING
Q401 2SK241-Y DISCHARGE
Q500,502 2SK241-GR SWITCHING
Q501 2SK241-Y DISCHARGE
Q151,153 2SD774 DISC MOTOR DRIVE
Q152,154 2SB734 DISC MOTOR DRIVE
Q306 DTC114ES SWITCH
Q312 2SA1175 BUFFER
DISC MOTOR
S301 DIGITAL OUT
DIGITAL I/O UNIT
CNP309 (TEST)
IC802 M50761-420P SIRCS DECODER
FLD801 FLOURESCENT INDICATOR TUBE
Q801-806 DTC114ES FLD DRIVE
D811-816 1SS119
D400,401 HZ3ALL
【DISPLAY BOARD】
【OPEN/CLOSE SW BOARD(1/2)】
【KEY BOARD SW BOARD (1/2)】
S801 1 S802 12 S803 13 S804 4 S805 5 S806 6 S807 7 S808 8 S809 9 S810 10 S811 11 S812 12 S813 13 S814 14 S815 15 S816 16 S817 17 S818 18 S819 19 S820 20 S821 +10 S822 0 S823 0 S825 CLEAR S827 PROGRAM S829 CHECK S831 S832 S833 CONTINUE S834 SINGLE S836 S837 S838 S839 S840 S841 S842 CLEAR A⇔B S843 TIME S844 AUTO DELAY S845 SHUFFLE PLAY S846 OPEN/CLOSE
【OUTPUT BOARD】
IC452 NE5532P HEADPHONE AMP
J400 LINE OUT
J401 HEADPHONES
【REMOTE CONTROL MOTOR BOARD】
【REMOTE CONTROL VR BOARD】
IC350 M54543L MOTOR DRIVE
Q923 2SC2676 Q921 2SC2676 Q922 2SC2275-A Q920 2SA1138
D942,952 10YD2.4A
Q410 2SC2785 RELAY DRIVE
Q411 DTC143XS RELAY DRIVE
D402 HZI2BIL
D403 1SS119
D404 1SS119
D963 RD2EBI
IC910 μPC78M12H REG.
IC920 NJM79M12A REG.
IC315 TC74HCU04F RESET
Q902,903 2SC2785 RESET
IC901 NJM7805A REG.
IC902 NJM7905A REG.
D941 C10P20FU RECT
Q930 2SC2676
Q931 2SA1138
Q932 2SA985-P REG.
Q933 2SA1138
D960 RD5.1EB1
Q941 2SB734 REG.
D961,962 10E2
D943,953 EQB01-08Q
D951 C10P20FUR RECT
T901 POWER
US MODEL
CANADIAN MODEL
【POWER SWITCH BOARD】
AC INPUT
FIXED (L)
FIXED (R)
VARIABLE (L)
VARIABLE (R)
(CHASSIS)
HEADPHONES
LINE OUT (PHONE LEVEL)
REMOTE CONTROL
VOL UP
VOL DOWN
M301 VR UP/DOWN
D350 10E2
D410 1SS119
RY401
RY402
RY400

E MODEL

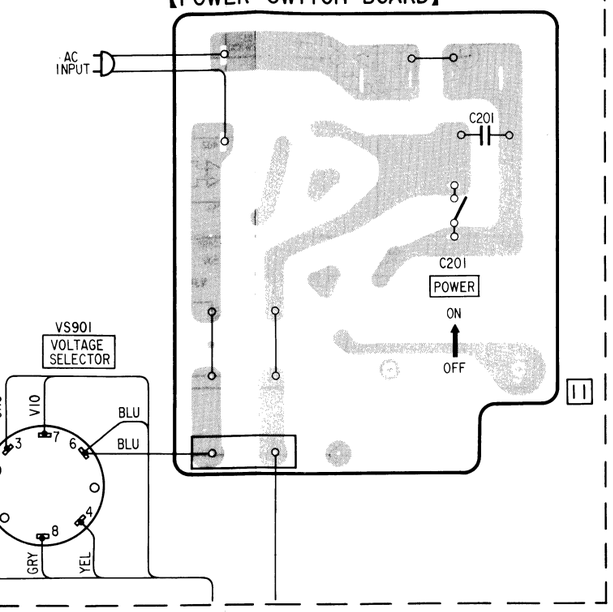


AEP, UK MODEL



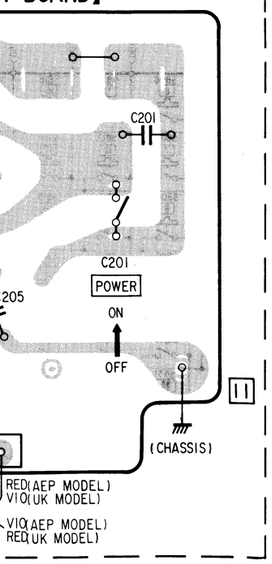
E MODEL

【POWER SWITCH BOARD】



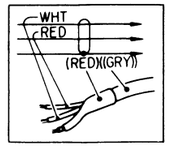
AEP, UK MODEL

H BOARD】



Note on Mounting Diagram:

- Color code or sleeving over the end of the jacket.



- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- [ ]→ : indicates side identified with part number.
- : component-side pattern.

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ——▶ : signal path.
- Components for right channel have same values as for left channel. Reference numbers are coded from 500.
- : fusible resistor.
- ▬▬ : B+ bus.
- ▬ ▬ : B− bus.
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V) when PLAY MODE siwtch set to CONTINUE.
  no mark : STOP mode
  ( ) : PLAY mode
  < > : When load in operates.
  ≪ ≫ : When load out operates.
  { } : DIGITAL OUT switch ON.
- Waveforms are taken to ground in STOP mode by using oscilloscope.
  Voltage variations may be noted due to normal production tolerances.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

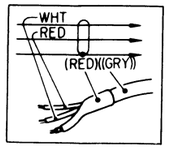
- Switch

Ref. No.	Switch	Position
S201	POWER	OFF
S301 (CDP-552ESDII/650ESDII)	DIGITAL OUT	OFF
S302	TIMER	OFF
S651	LOAD IN DET	ON
S652	LOAD OUT DET	OFF
S653	MOTOR SELECT	NEUTRA
S654	CHUCKING	OFF
S801	1	OFF
S802	2	OFF
S803	3	OFF
S804	4	OFF
S805	5	OFF
S806	6	OFF
S807	7	OFF
S808	8	OFF
S809	9	OFF
S810	10	OFF
S811	11	OFF
S812	12	OFF
S813	13	OFF
S814	14	OFF
S815	15	OFF
S816	16	OFF
S817	17	OFF
S818	18	OFF
S819	19	OFF
S820	20	OFF
S821	+10	OFF
S823	0	OFF
S825	CLEAR	OFF
S827	PROGRAM	OFF
S829	CHECK	OFF
S830	▶	OFF
S831	▮▮	OFF
S832	■	OFF
S833	CONTINUE	OFF
S834	SINGLE	OFF
S836	⏮	OFF
S837	⏭	OFF
S838	←	OFF
S839	→	OFF
S840	◀◀	OFF
S841	▶▶	OFF
(KEY SW BOARD) S841	REPEAT	OFF
(DISPLAY BOARD) S842	CLEAR A ↔ B	OFF
S843	TIME	OFF
S844	AUTO DELAY	OFF
S845	SHUFFLE PLAY	OFF
S846	OPEN/CLOSE	OFF

CDP-502ESII/552ESDII/620ESII/650ESDII

Note on Mounting Diagram:

- Color code or sleeving over the end of the jacket.



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- [ ]+ : indicates side identified with part number.
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Note on Schematic Diagram:

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- ——▶—— : signal path.
- Components for right channel have same values as for left channel. Reference numbers are coded from 500.
- : fusible resistor.
- ——— : B+ bus.
- - - - : B− bus.
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V) when PLAY MODE siwtch set to CONTINUE.
  no mark : STOP mode
  ( ) : PLAY mode
  < > : When load in operates.
  ≪ ≫ : When load out operates.
  ⎧ ⎫ : DIGITAL OUT switch ON.
- Waveforms are taken to ground in STOP mode by using oscilloscope.
  Voltage variations may be noted due to normal production tolerances.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

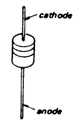
Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Switch

Ref. No.	Switch	Position
S201	POWER	OFF
S301 (CDP-552ESDII/650ESDII)	DIGITAL OUT	OFF
S302	TIMER	OFF
S651	LOAD IN DET	ON
S652	LOAD OUT DET	OFF
S653	MOTOR SELECT	NEUTRAL
S654	CHUCKING	OFF
S801	1	OFF
S802	2	OFF
S803	3	OFF
S804	4	OFF
S805	5	OFF
S806	6	OFF
S807	7	OFF
S808	8	OFF
S809	9	OFF
S810	10	OFF
S811	11	OFF
S812	12	OFF
S813	13	OFF
S814	14	OFF
S815	15	OFF
S816	16	OFF
S817	17	OFF
S818	18	OFF
S819	19	OFF
S820	20	OFF
S821	+10	OFF
S823	0	OFF
S825	CLEAR	OFF
S827	PROGRAM	OFF
S829	CHECK	OFF
S830	▶	OFF
S831	⏸	OFF
S832	■	OFF
S833	CONTINUE	OFF
S834	SINGLE	OFF
S836	⏮	OFF
S837	⏭	OFF
S838	◀—	OFF
S839	—▶	OFF
S840	◀◀	OFF
S841	▶▶	OFF
(KEY SW BOARD)		
S841	REPEAT	OFF
(DISPLAY BOARD)		
S842	CLEAR A ↔ B	OFF
S843	TIME	OFF
S844	AUTO DELAY	OFF
S845	SHUFFLE PLAY	OFF
S846	OPEN/CLOSE	OFF

- Semiconductor Lead Layouts

1SS119



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RD5.1E-B1
RD24E-B1
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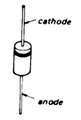

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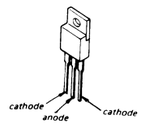

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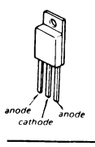

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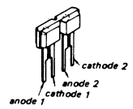

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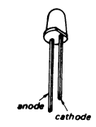
EBG3432S



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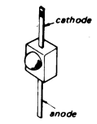

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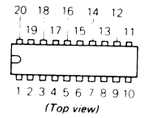
μPC4558C

M50761-420P



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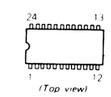

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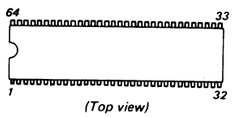

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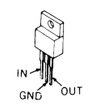
NJM78M20A



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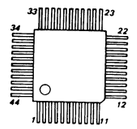

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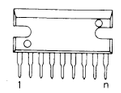

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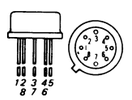

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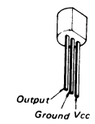

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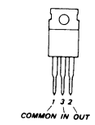

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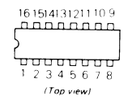

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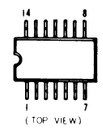

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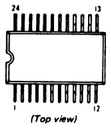

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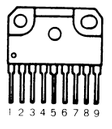

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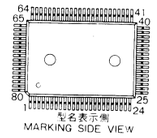

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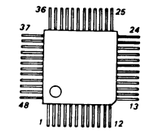

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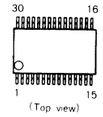

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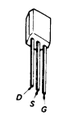

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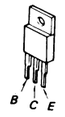

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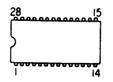
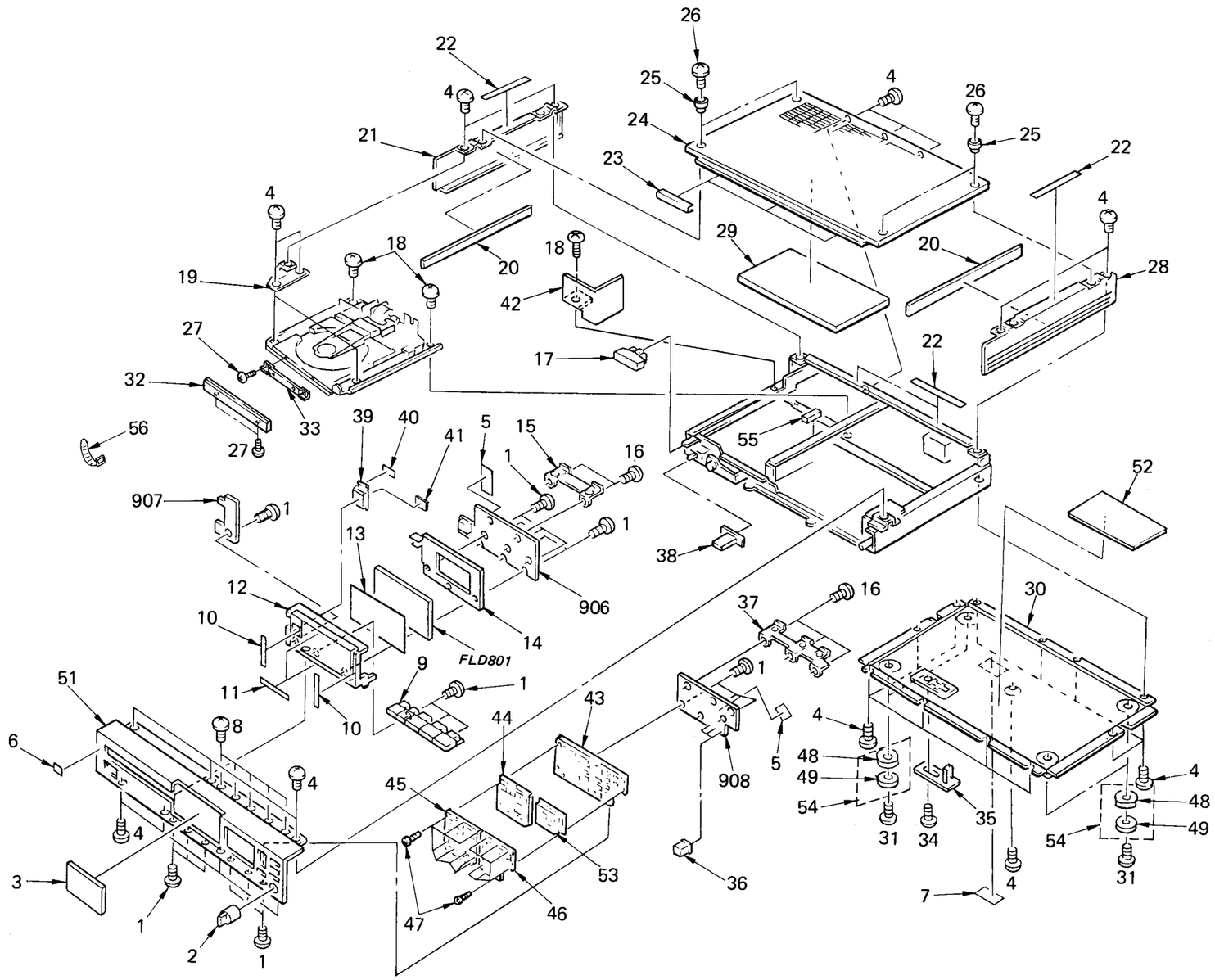


SECTION 5
EXPLODED VIEWS AND PARTS LIST

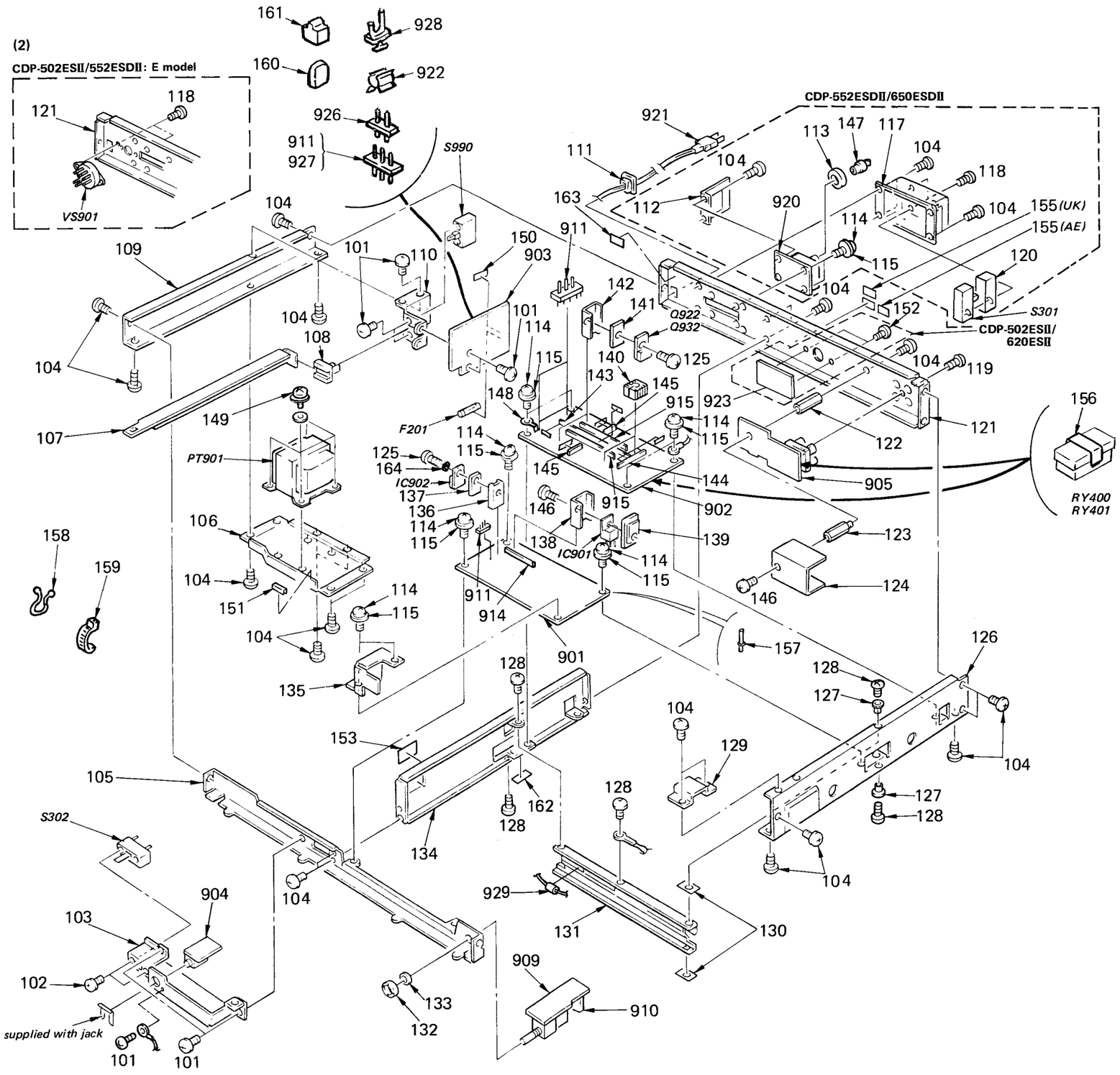
NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

(1)

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description	Remarks
1	7-685-133-19	SCREW +P 2.6X6 TYPE2 NON-SLIT	
2	4-908-908-01	KNOB, CONTROL	
3	4-908-904-11	PLATE, FROSTED	
4	3-703-685-31	SCREW (+BV 3X8)	
5	3-831-441-XX	CUSHION (B)	
6	3-703-710-41	STICKER, SONY SYMBOL (12)	
7	3-703-079-21	LABEL, CAUTION (BACK)	
8	3-703-108-21	SCREW +BV 3X6, S TIGHT	
9	X-4908-902-2	KNOB (C) ASSY	
10	*4-908-985-01	SHEET (A), ADHESIVE	
11	*4-908-986-01	SHEET (B), ADHESIVE	
12	X-4908-905-3	ESCUTCHEON ASSY, FROSTED PLATE	
13	4-908-916-01	FILTER	
14	*4-908-937-01	HOLDER, INDICATION TUBE	
15	*4-908-912-01	RETAINER (A)	
16	7-685-134-14	SCREW +BTB 2.6X8 TYPE2 N-S	
17	X-4887-104-0	KNOB ASSY, POWER	
18	7-685-871-01	SCREW +BVTT 3X6 (S)	
19	*4-908-995-01	BRACKET (LEFT), PANEL	
20	*4-908-958-01	DAMPER (A)	
21	*4-886-538-41	PLATE (LEFT), SIDE, ORNAMENTAL	
22	3-831-441-11	SPACER	
23	3-831-441-11	SHEET, PROTECTION	
24	4-908-925-21	PLATE, TOP	
25	3-576-298-11	ESCUTCHEON	
26	4-908-987-01	SCREW, FLAT WASHER (+B)(3X6)	
27	7-621-775-10	SCREW +B 2.6X4	
28	*4-886-539-41	PLATE(RIGHT), SIDE, ORNAMENTAL	
29	*4-908-959-01	DAMPER (B)	
30	*4-908-948-41	PLATE, BOTTOM	
31	7-682-561-04	SCREW (+ B4X8) (CU,BKBR)	
32	4-908-478-01	(502ES2/620ES2).....PANEL, LOADING	
	4-908-978-11	(552ESD2/650ESD2)...PANEL, LOADING	
33	*4-912-545-01	BRACKET (B), L PANEL	
34	3-323-470-01	SCREW (B3X6), (+ -)	
35	*4-908-600-01	LEVER, LOCK, TRANSPORT	
36	4-908-955-01	BUTTON, MODE	
37	*4-908-913-01	RETAINER (B)	
38	4-887-131-00	KNOB, SLIDE SWITCH	
39	X-4908-908-5	(552ESD2/650ESD2)...BUTTON ASSY, O/C	
	X-4908-908-6	(502ES2/620ES2).....BUTTON ASSY, O/C	
40	9-911-837-XX	SPACER	
41	9-911-815-02	CUSHION	
42	*4-913-102-01	SHEET (E), INSULATING	
43	*4-908-945-01	RETAINER, KEY BOARD	
44	4-908-938-01	(502ES2/620ES2).....KNOB (A)	
	4-908-938-11	(552ESD2/650ESD2)...KNOB (A)	
45	4-908-932-01	ESCUTCHEON (A)	
46	4-908-933-01	ESCUTCHEON (B)	
47	2-387-701-11	TAPPING (B) (1.4X5)	
48	4-913-104-01	(552ESD2/650ESD2)...BASE, FOOT	
49	4-913-103-01	(552ESD2/650ESD2)...FOOT	
51	X-4908-435-1	(650ESD2)...PANEL ASSY, FRONT	
	X-4908-436-1	(620ES2)....PANEL ASSY, FRONT	
	X-4908-920-1	(552ESD2)...PANEL ASSY, FRONT	
	X-4908-921-1	(502ES2)....PANEL ASSY, FRONT	
52	4-913-101-01	SHEET, PS	
53	4-908-939-21	KNOB (B)	
54	*X-4908-434-1	(502ES2/620ES2)...FOOT ASSY	
55	*2-235-929-01	CUSHION	
56	3-655-653-21	BAND (TAITON), BINDING	
906	*1-617-259-11	PC BOARD, DISPLAY	
907	*1-617-260-11	PC BOARD, O/C	
908	*1-617-261-11	PC BOARD, KEY BOARD SW	
FLD801	1-519-333-11	INDICATOR TUBE, FLUORESCENT	

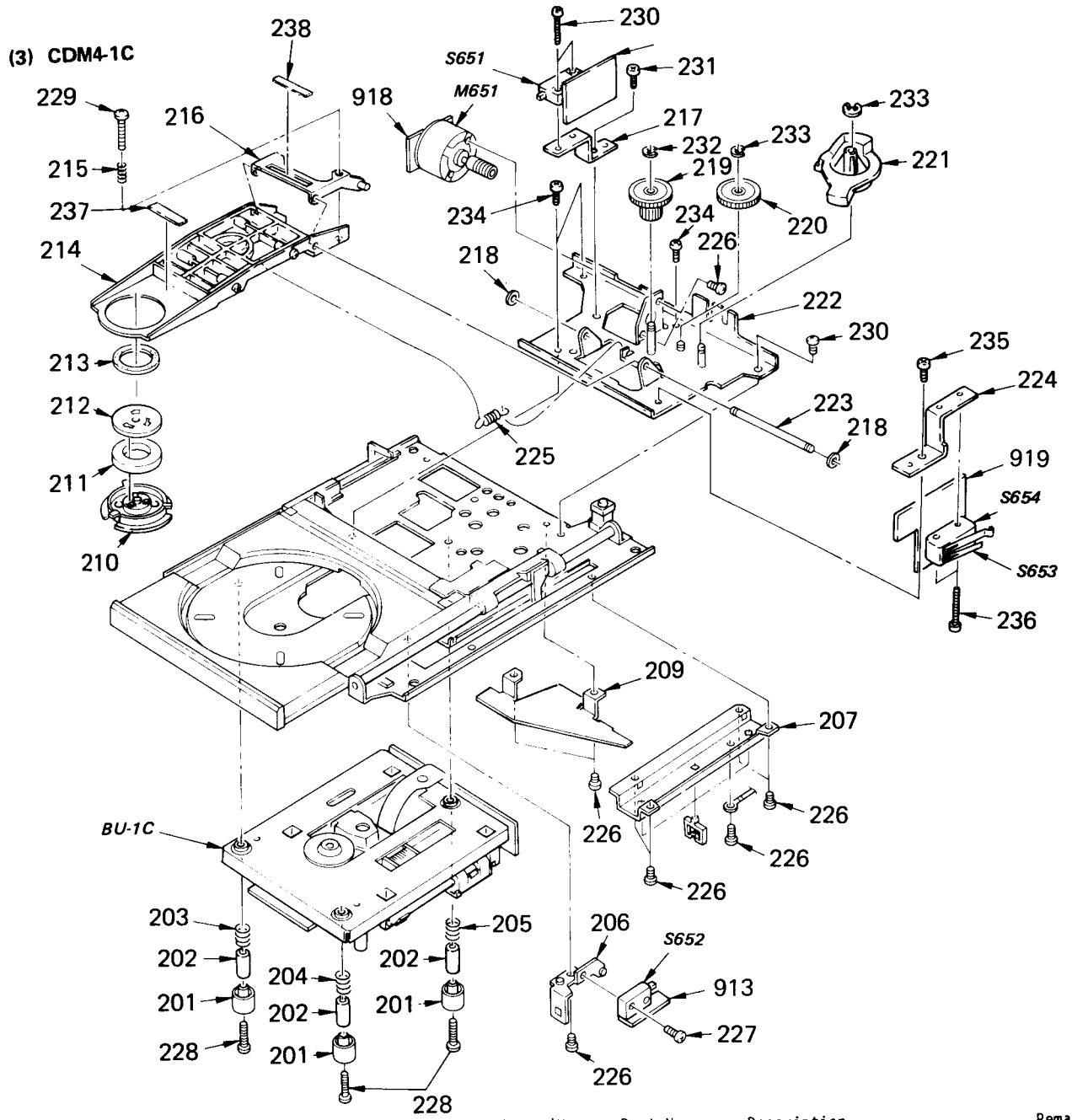

(2)
CDP-502ESII/552ESDII: E model
CDP-552ESDII/650ESDII
CDP-502ESII/620ESII
RY400
RY401
VS901
S990
S301
S302
F201
PT901
IC902
IC901
supplied with jack

No.	Part No.	Description	Remarks
101	7-685-871-01	SCREW +BVTT 3X6 (S)	
102	7-621-284-00	SCREW +P 2.6X4	
103	*4-908-935-01	BRACKET, SWITCH	
104	3-703-685-31	SCREW (+BV 3X8)	
105	*4-908-947-11	ANGLE (F)	
106	*4-908-934-01	CHASSIS, TRANSFORMER	
107	*4-908-924-01	LEVER, POWER SWITCH	
108	4-866-342-00	JOINT (B), KNOB	
109	*4-908-941-11	ANGLE (LEFT)	
110	*4-913-105-01	BRACKET, POWER SWITCH	
111	3-703-244-00	BUSHING (2104), CORD	
112	*4-908-973-01	(552ESD2/650ESD2)...PLATE, SHIELD, D/O	
113	4-908-991-01	ESCUTCHEON	
114	7-685-873-01	SCREW +BVTT 3X10 (S)	
115	4-908-961-01	WASHER	
116	*4-908-475-01	(650ESD2).....LABEL, MODEL NUMBER(U,C)	
	*4-908-476-01	(620ES2).....LABEL, MODEL NUMBER(U,C)	
	*4-913-113-01	(552ESD2:AEP)...LABEL, MODEL NUMBER(A)	
	*4-913-114-01	(552ESD2:UK)....LABEL, MODEL NUMBER(UK)	
	*4-913-115-01	(552ESD2:E).....LABEL, MODEL NUMBER(E1/2)	
	*4-913-116-01	(502ES2:AEP)....LABEL, MODEL NUMBER(A)	
	*4-913-117-01	(502ES2:UK).....LABEL, MODEL NUMBER(UK)	
	*4-913-118-01	(552ES2:E).....LABEL, MODEL NUMBER(E)	
117	4-908-975-02	(552ESD2/650ESD2)...CASE, DIGITAL OUT	
118	7-621-284-20	SCREW +P 2.6X6	
119	4-887-711-11	SCREW, TERMINAL, CLAW, + BVTP	
120	*4-913-107-01	(552ESD2/650ESD2)...SPACER, SWITCH	
121	*4-913-119-01	(552ESD2:AEP,UK/650ESD2)...PLATE, JACK	
	*4-913-119-11	(552ESD2:E).....PLATE, JACK	
	*4-913-119-21	(502ES2:AEP,UK/620ES2).....PLATE, JACK	
	*4-913-119-31	(502ES2:E).....PLATE, JACK	
122	*2-280-622-41	SUPPORT (M3), HEXAGON	
123	*4-870-266-00	SUPPORT, BLOCK	
124	*4-908-952-01	PLATE, SHIELD	
125	2-259-121-11	SCREW, TR	
126	*4-908-942-01	ANGLE (RIGHT)	
127	2-371-561-00	BUSHING (P), INSULATING	
128	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
129	*4-908-914-01	BRACKET (RIGHT), PANEL	
130	*4-908-962-01	SHEET (C), INSULATING	
131	*4-908-936-01	HEAT SINK	
132	4-908-963-01	NUT, SPECIAL	
133	3-701-446-11	WASHER, 8	
134	*4-908-943-01	ANGLE (C)	
135	*4-908-953-01	PLATE (A), SHIELD	
136	*4-902-345-01	HEAT SINK	
137	*4-879-920-00	SPACER, HEAT SINK	
138	*4-908-954-01	HEAT SINK, TR	
139	4-887-707-00	RETAINER, TRANSFORMER	
140	2-269-798-01	HEAT SINK, TO-39	
141	4-870-272-00	HEAT SINK	
142	*4-886-555-00	HEAT SINK	
143	*4-908-950-01	REINFORCEMENT (A), PWB	
144	*4-908-951-01	REINFORCEMENT (B), PWB	
145	*4-913-106-01	REINFORCEMENT (C), PWB	
146	2-259-121-00	SCREW, TR	
147	4-854-741-00	(552ESD2/650ESD2)...CAP, DUST PROTECTION, P.J	
148	4-870-539-00	PLATE, GROUND	
149	4-820-330-21	BW SCREW	
150	*3-701-946-22	(620ES2/650ESD2)...LABEL, FUSE	

No.	Part No.	Description	Remarks
151	*4-913-112-01	EDGEING	
152	7-685-134-19	SCREW +BTP 2.6X8	
153	4-885-843-02	LABEL, CAUSION, LASER	
154	9-911-844-XX	CUSHION	
155	*4-885-838-00	(502ES2/552ESD2)...LABEL, CLASS A	
156	3-831-441-XX	CUSHION, SPEAKER	
157	3-657-235-00	POINT, TEST	
158	2-056-666-00	PURSE LOCK (8 DIA.)	
159	3-655-653-21	BAND (TAITON), BINDING	
160	*4-374-846-01	(AEP,UK)...COVER, CAPACTOR, CAP TYPE	
161	4-886-828-01	(AEP,UK)...COVER, LFT	
162	3-831-441-XX	CUSHION (B), CABINET	
163	3-703-044-26	(US,Canadian)...LABEL, CAUTION	
164	3-675-712-01	WASHER, COPPER	
901	*A-4619-291-A	(552ESD2/650ESD2)...MOUNTED PCB, SERVO	
	*A-4619-292-A	(502ES2/620ES2).....MOUNTED PCB, SERVO	
902	*A-4651-091-A	MOUNTED PCB, AUDIO	
903	*1-614-474-11	(Canadian,E)...PC BOARD, POWER SWITCH	
	*1-615-817-11	(US,AEP,UK)....PC BOARD, POWER SWITCH	
904	*1-617-243-11	PC BOARD, HEADPHONE JACK	
905	*1-617-244-11	PC BOARD, OUTPUT	
909	*1-620-091-11	PC BOARD, REMOTE CONTROL VR	
910	*1-620-092-11	PC BOARD, REMOTE CONTROL MOTOR	
911	*1-535-116-00	BASE POST 3P	
914	*1-560-242-01	BUS BAR 4P	
915	*1-560-242-71	BUS BAR 6P	
920	1-464-454-11	(552ESD2/650ESD)...DIGITAL (I/O) UNIT	
921	⚠1-555-386-00	(E).....CORD, POWER	
	⚠1-555-795-00	(AEP).....CORD, POWER	
	⚠1-556-035-00	(UK).....CORD, POWER	
	⚠1-557-577-11	(US,Canadian)...CORD, POWER	
922	1-533-183-11	(US,Canadian)...HOLDER, FUSE	
923	*1-620-093-11	(502ES2/620ES2)...PC BOARD, SUB CORD	
926	*1-535-135-11	BASE POST 2P	
927	*1-535-136-11	(AEP,UK)...BASE POST 3P	
928	1-535-476-11	TERMINAL, PIN	
929	1-543-392-11	(552ESD2/650ESD2)...CORE, FERRITE	
F201	⚠1-532-699-11	(US,Canadian)...FUSE 1.6A 125V	
IC901	8-759-700-51	IC NJM7805A	
IC902	8-759-700-28	IC NJM7905A	
PT901	⚠1-448-021-11	(AEP,UK).....TRANSFORMER, POWER	
PT901	⚠1-448-023-21	(E).....TRANSFORMER, POWER	
PT901	⚠1-448-254-21	(US,Canadian)...TRANSFORMER, POWER	
Q922	8-729-107-53	TRANSISTOR 2SC2275-A	
Q932	8-729-118-53	TRANSISTOR 2SA985-P	
RY400	1-515-547-11	RELAY	
RY401	1-515-547-11	RELAY	
S301	1-570-100-11	(552ESD2/650ESD2) ...SWITCH, SLIDE (DIGITAL OUT)	
S302	1-554-421-00	SWITCH, SLIDE (TIMER)	
S990	⚠1-553-318-00	SWITCH, PUSH (POWER)	
VS901	⚠1-552-963-00	(E)....SWITCH, POWER VOLTAGE SELECT	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

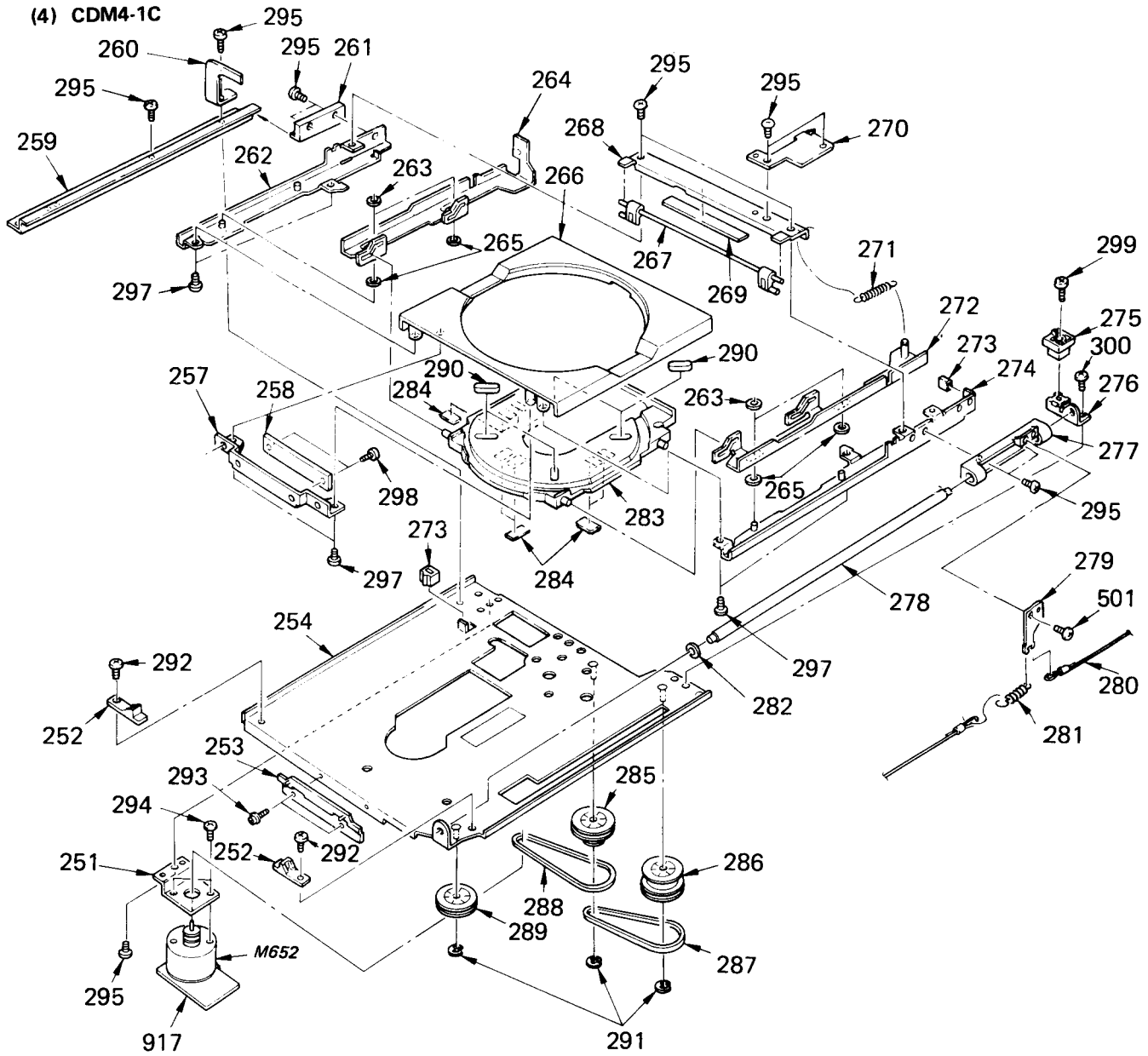
Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description	Remarks
201	4-908-592-01	POLE (A), INSULATOR	
202	*4-908-636-01	SPACER	
203	4-912-548-01	SPRING, COMPRESSION (GOLD)	
204	4-912-547-01	SPRING, COMPRESSION (SILVER)	
205	4-912-549-01	SPRING, COMPRESSION (BLACK)	
206	*4-908-541-01	BRACKET (C), SWITCH	
207	*X-4908-517-1	COVER ASSY, ROPE	
209	*4-908-597-01	COVER, BELT	
210	4-912-530-01	PULLEY, PRESS	
211	1-452-340-11	MAGNET	
212	*4-912-515-01	YOKE	
213	4-908-551-01	CUSHION	
214	*X-4912-509-1	ARM ASSY, C	
215	4-908-559-01	SPRING, COMPRESSION	
216	X-4908-513-1	PLATE ASSY, ADJUSTMENT, ARM	
217	*4-912-543-01	BRACKET (D), SWITCH	
218	3-558-708-21	WASHER, STOPPER	
219	4-912-514-01	GEAR (A)	
220	4-912-525-01	GEAR (B)	
221	4-912-528-01	GEAR, CAM	
222	*X-4912-503-1	CHASSIS ASSY, SUB	
223	4-908-513-01	SHAFT, FULCRUM, C ARM	
224	*4-912-524-01	BRACKET (A), SWITCH	

No.	Part No.	Description	Remarks
225	4-908-555-01	SPRING, TENSION (C ARM)	
226	7-621-775-00	SCREW +B 2.6X3	
227	7-621-770-XX	SCREW +P 2.6X8	
228	7-682-553-09	SCREW +B 3X20	
229	7-621-775-80	SCREW +B 2.6X16	
230	7-685-864-01	SCREW +BVTT 2.6X10 (S)	
231	7-682-646-01	SCREW +PS 3X5	
232	7-624-109-04	STOP RING 5.0, TYPE -E	
233	7-624-106-04	STOP RING 3.0, TYPE -E	
234	7-682-546-04	SCREW +BVTT 3X5 (S)	
235	7-682-544-09	SCREW +B 3X3	
236	7-621-257-85	SCREW +P 2.3X14	
237	*4-912-551-01	SHEET (C), DT PS	
238	*4-912-552-01	SHEET (B), DT PS	
913	*1-617-229-11	PC BOARD, LOAD OUT SW	
918	*1-617-231-11	PC BOARD, CHACKING MOTOR	
919	*1-617-232-11	PC BOARD, L.C. SWITCH	
924	*1-617-233-11	PC BOARD, IN SWITCH	
M651	X-4902-019-1	MOTOR ASSY, CHUCKING	
S651	1-554-205-00	SWITCH, PUSH (LOAD IN DET)	
S652	1-554-205-00	SWITCH, PUSH (LOAD OUT DET)	
S653	1-553-636-00	SWITCH, MICRO (MOTOR SELECT)	
S654	1-570-447-11	SWITCH, MICRO (CHUCKING)	

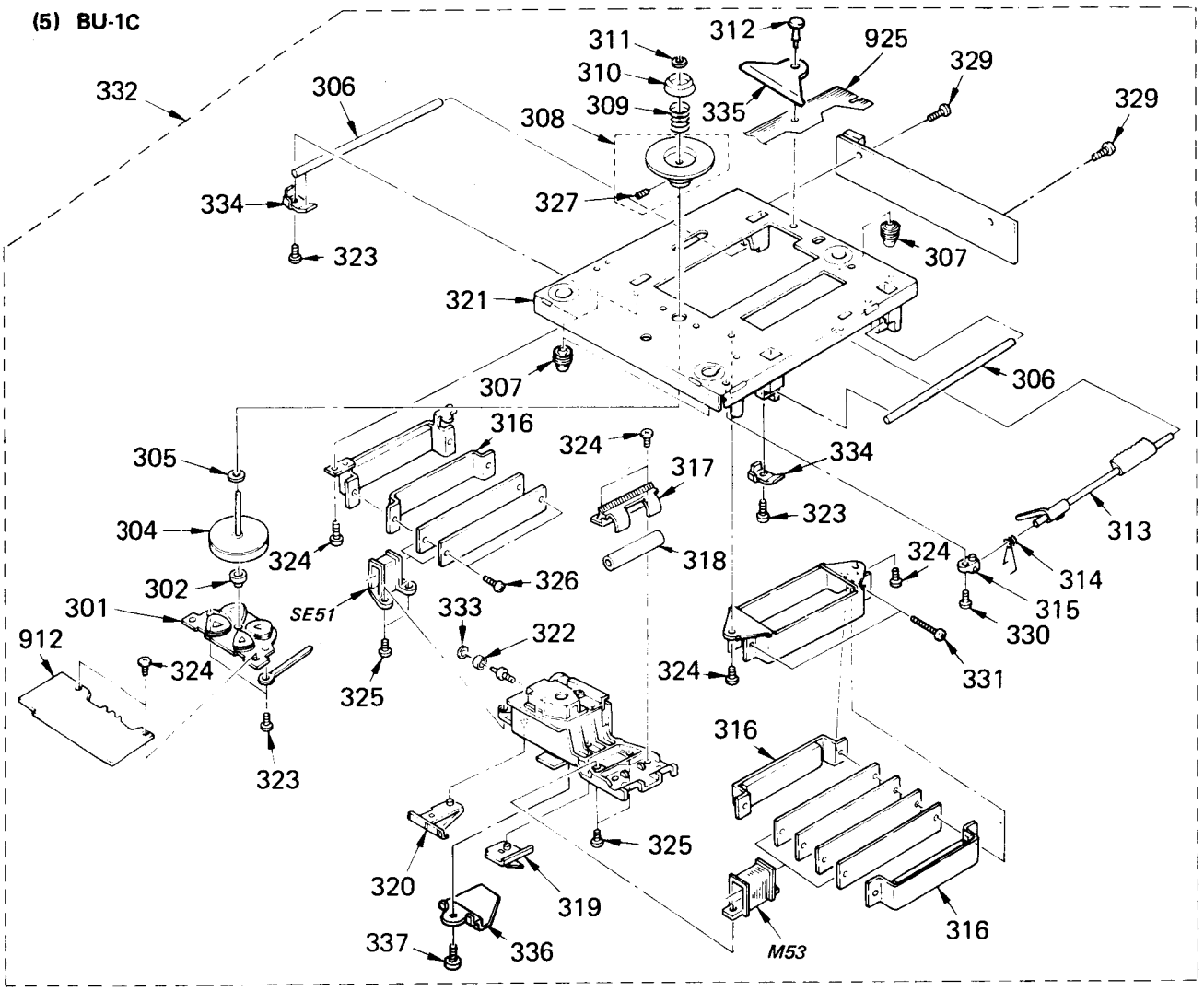
(4) CDM4-1C



No.	Part No.	Description	Remarks
251	*4-908-523-01	BRACKET, MOTOR	
252	4-908-540-01	GUIDE, ASSIST	
253	*X-4912-508-1	BRACKET ASSY, TABLE	
254	*X-4912-507-1	CHASSIS ASSY, MECHANICAL	
257	*4-912-540-01	BRACKET (A), L PANEL	
258	*4-912-544-01	PLATE, FIXED	
259	*4-912-529-01	GUIDE, LOADING	
260	*4-912-527-01	RETAINER, TABLE	
261	*4-912-534-01	GUIDE, SUB	
262	*X-4912-504-1	BRACKET (LEFT) ASSY, TABLE	
263	3-558-708-21	WASHER, STOPPER	
264	*4-912-531-01	PLATE (LEFT), CAM, DISK	
265	3-701-439-11	WASHER	
266	4-908-584-01	TABLE, DISK	
267	4-908-534-01	LEVER, FUNCTION	
268	*4-912-532-01	REINFORCEMENT, TABLE	
269	*4-912-526-01	SHEET	
270	*4-912-522-01	PLATE, SW	
271	4-912-516-01	SPRING (DISK CAM), TENSION	
272	*X-4912-506-1	PLATE (RIGHT) ASSY, CAM, DISK	
273	4-887-175-00	RUBBER, STOPPER	
274	*X-4912-505-1	BRACKET (RIGHT) ASSY, TABLE	
275	*4-912-513-01	STOPPER, TABLE	
276	*4-912-519-01	RETAINER (RIGHT), SHAFT	
277	4-912-538-01	BEARING (RIGHT), GUIDE	

No.	Part No.	Description	Remarks
278	4-912-521-01	SHAFT (RIGHT), GUIDE	
279	*4-912-520-01	BRACKET, ROPE	
280	4-912-517-01	ROPE	
281	4-908-553-01	SPRING, COMPRESSION (ROPE)	
282	4-912-512-01	CUSHION (A)	
283	X-4908-506-1	PLATE ASSY, DISK	
284	*4-908-964-01	SHEET, PS, DT	
285	4-908-519-01	PULLEY (A)	
286	4-908-525-01	PULLEY (C)	
287	3-671-077-00	BELT, FF	
288	4-908-591-01	BELT, DRIVING	
289	4-908-524-01	PULLEY (B)	
290	4-908-543-01	RETAINER, DISK	
291	7-624-106-04	STOP RING 3.0, TYPE -E	
292	7-621-775-00	SCREW +B 2.6×3	
293	7-621-759-60	+PSW, 2.6X8	
294	7-621-775-00	SCREW +B 2.6X3	
295	7-682-546-04	SCREW +BVTT 3X5 (S)	
297	7-685-646-71	SCREW +BVTP 3X8 TYPE2 SLIT	
298	7-685-791-04	SCREW +BVTT 2.6X5 (S)	
299	7-685-876-01	SCREW +BVTT 3X16 (S)	
300	7-682-646-01	SCREW +PS 3X5	
501	7-685-132-19	SCREW +BTP 2.6X5 TYPE2 N-S	
917	*1-617-230-11	PC BOARD, LOADING MOTOR	
M652	A-4608-303-A	MOTOR ASSY, LOADING	

(5) BU-1C



No.	Part No.	Description	Remarks
301	A-4675-068-A	BRACKET ASSY, MOTOR	
302	2-622-105-01	RETAINER, THRUST	
304	A-4675-069-A	ROTOR ASSY	
305	3-701-439-21	WASHER	
306	4-908-201-01	SHAFT, SLIDE	
307	4-908-593-01	INSULATOR	
308	X-4908-202-1	PULLEY ASSY, DISK	327
309	4-908-213-01	SPRING, COMPRESSION	
310	4-908-212-01	CAP, CENTERING	
311	3-558-708-21	WASHER, STOPPER	
312	3-531-576-01	RIVET	
313	4-908-227-01	LEVER, LOCK	
314	4-908-230-01	SPRING	
315	4-908-220-01	HOLDER, ROD	
316	*A-4675-110-A	MAGNET ASSY, LINEAR	
317	4-908-224-01	HOLDER, BEARING	
318	4-908-221-01	BEARING	
319	4-908-225-01	RETAINER (A), LEAD	
320	4-908-219-01	RETAINER (B), LEAD	

No.	Part No.	Description	Remarks
321	*A-4675-112-A	BASE ASSY	
322	4-908-208-01	BEARING (NO-FLANGE), BALL	
323	7-685-134-19	SCREW +P 2.6X8 TYPE2 SLIT	
324	7-621-775-10	SCREW +B 2.6X4	
325	7-621-775-20	SCREW +B 2.6X5	
326	7-685-793-04	SCREW +BVTT 2.6X8 (S)	
327	7-621-734-09	SET-SCT, HEX. 2.6X3	
329	7-685-864-01	SCREW +BVTT 2.6X10 (S)	
330	7-621-775-20	+B 2.6X5	
331	7-685-867-01	SCREW +BVTT 2.6X16 (S)	
332	⚠X-4908-207-1	BU-1C	301-334
333	7-624-105-04	STOP RING 2.3, TYPE -E	
334	4-908-245-01	RETAINER (C), SHAFT, SLIDE	
335	*4-908-254-01	RETAINER, PC BOARD	
336	*4-908-255-01	SUPPORT, PC BOARD	
337	7-682-546-09	SCREW, +B 3X5	
912	*A-4656-008-A	MOUNTED PCB, MOTOR	
925	A-4646-215-A	MOUNTED PCB, FLEXIBLE	
M53	1-422-197-14	COIL (DRIVE)	
SE51	1-422-198-11	COIL (SENSOR)	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 6
ELECTRICAL PARTS LIST

NOTE:
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
901	*A-4619-291-A	(552ESD2/650ESD2)...MOUNTED PCB, SERVO
	*A-4619-292-A	(502ES2/620ES2).....MOUNTED PCB, SERVO
902	*A-4651-091-A	MOUNTED PCB, AUDIO
903	*1-614-474-11	(Canadian,E)...PC BOARD, POWER SWITCH
	*1-615-817-11	(US,AEP,UK)....PC BOARD, POWER SWITCH
904	*1-617-243-11	PC BOARD, HEADPHONE JACK
905	*1-617-244-11	PC BOARD, OUTPUT
906	*1-617-259-11	PC BOARD, DISPLAY
907	*1-617-260-11	PC BOARD, O/C
908	*1-617-261-11	PC BOARD, KEY BOARD SW
909	*1-620-091-11	PC BOARD, REMOTE CONTROL VR
910	*1-620-092-11	PC BOARD, REMOTE CONTROL MOTOR
911	*1-535-116-00	BASE POST 3P
912	*A-4656-008-A	MOUNTED PCB, MOTOR
913	*1-617-229-11	PC BOARD, LOAD OUT SW
914	*1-560-242-01	BUS BAR 4P
915	*1-560-242-71	BUS BAR 6P
917	*1-617-230-11	PC BOARD, LOADING MOTOR
918	*1-617-231-11	PC BOARD, CHACKING MOTOR
919	*1-617-232-11	PC BOARD, L.C. SWITCH
920	1-464-454-11	(552ESD2/650ESD)...DIGITAL (I/O) UNIT
921	⚠1-555-386-00	(E).....CORD, POWER
	⚠1-555-795-00	(AEP).....CORD, POWER
	⚠1-556-035-00	(UK).....CORD, POWER
	⚠1-557-577-11	(US,Canadian)...CORD, POWER
922	1-533-183-11	(US,Canadian)...HOLDER, FUSE
923	*1-620-093-11	(502ES2/620ES2)...PC BOARD, SUB CORD
924	*1-617-233-11	PC BOARD, IN SWITCH
925	A-4646-215-A	MOUNTED PCB, FLEXIBLE
926	*1-535-135-11	BASE POST 2P
927	*1-535-136-11	(AEP,UK)...BASE POST 3P
928	1-535-476-11	TERMINAL, PIN
929	1-543-392-11	(552ESD2/650ESD2)...CORE, FERRITE
C51	1-135-008-00	TANTAL. CHIP 2.2MF 20% 6.3V
C001	1-123-618-00	ELECT 22MF 20% 6.3V
C151	1-162-302-31	CERAMIC 0.0022MF 20% 16V
C152	1-162-302-31	CERAMIC 0.0022MF 20% 16V
C153	1-161-494-00	CERAMIC 0.022MF 30% 25V
C154	1-161-494-00	CERAMIC 0.022MF 30% 25V
C201	1-136-169-00	(SERVO BOARD)...FILM 0.22MF 5% 50V
C201	⚠1-161-744-00	(POWER SW BOARD) ...CERAMIC 0.01MF 5% 400V
C202	⚠1-161-742-00	(AEP,UK:POWER SW BOARD) ...CERAMIC 0.0022MF 400V
C202	1-162-302-31	(SERVO BOARD)..CERAMIC 0.0022MF 30% 16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C203	1-136-165-00	(SERVO BOARD)...FILM 0.1MF 5% 50V
C203	⚠1-161-742-00	(AEP,UK:POWER SW BOARD) ...CERAMIC 0.0022MF 5% 400V
C204	⚠1-161-742-00	(AEP,UK:POWER SW BOARD) ...CERAMIC 0.0022MF 5% 400V
C204	1-162-290-31	(SERVO BOARD)...CERAMIC 470PF 10% 50V
C205	1-130-475-00	(SERVO BOARD)...MYLAR 0.0022MF 5% 50V
C205	⚠1-161-742-00	(AEP,UK:POWER SW BOARD) ...CERAMIC 0.0022MF 400V
C206	1-131-371-00	(SERVO BOARD)...TANTALUM 10MF 10% 16V
C206	⚠1-161-744-00	(US,AEP,UK:POWER SW BOARD) ...CERAMIC 0.01MF 400V
C207	1-136-159-00	(SERVO BOARD)...FILM 0.033MF 5% 50V
C207	⚠1-161-744-00	(US,AEP,UK:POWER SW BOARD) ...CERAMIC 0.01MF 400V
C208	1-136-169-00	FILM 0.22MF 5% 50V
C209	1-136-161-00	FILM 0.047MF 5% 50V
C210	1-130-471-00	MYLAR 0.001MF 5% 50V
C211	1-130-475-00	MYLAR 0.0022MF 5% 50V
C212	1-130-487-00	MYLAR 0.022MF 5% 50V
C213	1-162-291-31	CERAMIC 560PF 10% 50V
C214	1-130-475-00	MYLAR 0.0022MF 5% 50V
C215	1-136-165-00	FILM 0.1MF 5% 50V
C216	1-130-487-00	MYLAR 0.022MF 5% 50V
C217	1-136-165-00	FILM 0.1MF 5% 50V
C218	1-162-304-31	CERAMIC 0.0047MF 30% 16V
C219	1-136-163-00	FILM 0.068MF 5% 50V
C221	1-123-318-00	ELECT 33MF 20% 16V
C222	1-123-318-00	ELECT 33MF 20% 16V
C223	1-131-369-00	TANTALUM 4.7MF 10% 16V
C226	1-136-173-00	FILM 0.47MF 5% 50V
C228	1-136-173-00	FILM 0.47MF 5% 50V
C235	1-162-294-31	CERAMIC 0.001MF 10% 50V
C240	1-162-179-11	CERAMIC 0.1MF 50V
C241	1-162-179-11	CERAMIC 0.1MF 50V
C242	1-162-179-11	CERAMIC 0.1MF 50V
C243	1-162-179-11	CERAMIC 0.1MF 50V
C244	1-123-307-00	ELECT 100MF 20% 10V
C245	1-123-307-00	ELECT 100MF 20% 10V
C301	1-123-356-00	ELECT 10MF 20% 16V
C302	1-162-302-31	CERAMIC 0.0022MF 30% 16V
C303	1-162-302-31	CERAMIC 0.0022MF 30% 16V
C304	1-102-725-00	CERAMIC 36PF 5% 50V
C305	1-102-658-00	CERAMIC 180PF 5% 50V
C306	1-102-647-00	CERAMIC 39PF 5% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C307	1-162-282-31	CERAMIC	100PF	10%	50V
C317	1-162-306-31	CERAMIC	0.01MF	30%	16V
C318	1-136-153-00	FILM	0.01MF	5%	50V
C319	1-162-179-11	CERAMIC	0.1MF		50V
C320	1-162-286-31	CERAMIC	220PF	10%	50V
C324	1-162-179-11	CERAMIC	0.1MF		50V
C330	1-162-207-31	CERAMIC	22PF	5%	50V
C331	1-162-207-31	CERAMIC	22PF	5%	50V
C332	1-162-211-31	CERAMIC	33PF	5%	50V
C333	1-162-211-31	CERAMIC	33PF	5%	50V
C334	1-123-307-00	ELECT	100MF	20%	10V
C335	1-123-307-00	ELECT	100MF	20%	10V
C336	1-123-307-00	ELECT	100MF	20%	10V
C337	1-162-179-11	CERAMIC	0.1MF		50V
C338	1-162-179-11	CERAMIC	0.1MF		50V
C339	1-162-179-11	CERAMIC	0.1MF		50V
C340	1-162-179-11	CERAMIC	0.1MF		50V
C341	1-123-307-00	ELECT	100MF	20%	10V
C344	1-162-179-11	CERAMIC	0.1MF		50V
C345	1-123-325-00	ELECT	2200MF	20%	10V
C348	1-136-153-00	FILM	0.01MF	5%	50V
C349	1-123-380-00	ELECT	1MF	20%	50V
C351	1-123-380-00	ELECT	1MF	20%	50V
C353	1-136-165-00	FILM	0.1MF	5%	50V
C354	1-130-481-00	MYLAR	0.0068MF	5%	50V
C355	1-136-169-00	FILM	0.22MF	5%	50V
C356	1-162-290-31	CERAMIC	470PF	10%	50V
C358	1-123-307-00	ELECT	100MF	20%	6.3V
C359	1-123-307-00	ELECT	100MF	20%	6.3V
C360	1-136-165-00	FILM	0.1MF	5%	50V
C361	1-123-330-00	ELECT	22MF	20%	25V
C362	1-123-330-00	ELECT	22MF	20%	25V
C365	1-162-290-31	CERAMIC	470PF	10%	50V
C374	1-162-179-11	CERAMIC	0.1MF		50V
C378	1-123-307-00	ELECT	100MF	20%	10V
C380	1-162-302-31	CERAMIC	0.0022MF	30%	16V
C381	1-162-302-31	(552ESD2/650ESD2)... CERAMIC	0.0022MF	30%	16V
C382	1-123-343-00	(552ESD2/650ESD2)... ELECT	33MF	20%	25V
C383	1-110-193-11	(552ESD2/650ESD2)... MYLAR	0.01MF	10%	160V
C384	1-123-307-00	(552ESD2/650ESD2)... ELECT	100MF	20%	10V
C388	1-162-179-11	CERAMIC	0.1MF		50V
C395	1-123-310-00	ELECT	470MF	20%	10V
C396	1-125-367-11	ELECT	0.1MF		5.5V
C397	1-123-380-00	ELECT	1MF	20%	50V
C398	1-130-487-00	MYLAR	0.022MF	5%	50V
C399	1-136-161-00	FILM	0.047MF	5%	50V
C400	1-131-450-00	TANTALUM	1MF	20%	50V
C401	1-131-450-00	TANTALUM	1MF	20%	50V
C403	1-104-266-00	POLYSTYRENE	180PF	5%	500V
C404	1-136-327-11	FILM	0.0027MF	2%	100V
C405	1-130-967-00	FILM	0.0027MF	3%	100V
C406	1-130-967-00	FILM	0.0027MF	3%	100V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C407	1-130-967-00	FILM	0.0027MF	3%	100V
C408	1-130-967-00	FILM	0.0027MF	3%	100V
C409	1-130-967-00	FILM	0.0027MF	3%	100V
C410	1-130-967-00	FILM	0.0027MF	3%	100V
C411	1-136-327-11	FILM	0.0027MF	2%	100V
C412	1-130-960-00	FILM	0.01MF	2%	100V
C413	1-110-193-11	MYLAR	0.01MF	10%	160V
C414	1-123-373-00	ELECT	47MF	20%	63V
C415	1-107-310-00	MICA	220PF	5%	500V
C416	1-162-179-11	CERAMIC	0.1MF		50V
C417	1-107-310-00	MICA	220PF	5%	500V
C418	1-104-241-00	POLYSTYRENE	470PF	5%	500V
C420	1-123-333-00	ELECT	100MF	20%	25V
C421	1-123-333-00	ELECT	100MF	20%	25V
C422	1-101-005-00	CERAMIC	0.022MF		50V
C423	1-101-005-00	CERAMIC	0.022MF		50V
C424	1-123-332-00	ELECT	47MF	20%	16V
C425	1-123-332-00	ELECT	47MF	20%	16V
C430	1-162-179-11	CERAMIC	0.1MF		50V
C431	1-123-307-00	ELECT	100MF	20%	10V
C440	1-162-294-31	CERAMIC	0.001MF	10%	50V
C450	1-131-450-00	TANTALUM	1MF	20%	50V
C451	1-162-179-11	CERAMIC	0.1MF		50V
C452	1-131-450-00	TANTALUM	1MF	20%	50V
C453	1-131-450-00	TANTALUM	1MF	20%	50V
C454	1-123-337-00	ELECT	1000MF	20%	25V
C455	1-123-337-00	ELECT	1000MF	20%	25V
C456	1-131-450-00	TANTALUM	1MF	20%	50V
C457	1-131-450-00	TANTALUM	1MF	20%	50V
C458	1-123-336-00	ELECT	470MF	20%	25V
C459	1-162-179-11	CERAMIC	0.1MF		50V
C500	1-131-450-00	TANTALUM	1MF	20%	50V
C501	1-131-450-00	TANTALUM	1MF	20%	50V
C503	1-104-266-00	POLYSTYRENE	180PF	5%	500V
C504	1-136-327-11	FILM	0.0027MF	2%	100V
C505	1-130-967-00	FILM	0.0027MF	3%	100V
C506	1-130-967-00	FILM	0.0027MF	3%	100V
C507	1-130-967-00	FILM	0.0027MF	3%	100V
C508	1-130-967-00	FILM	0.0027MF	3%	100V
C509	1-130-967-00	FILM	0.0027MF	3%	100V
C510	1-130-967-00	FILM	0.0027MF	3%	100V
C511	1-136-327-11	FILM	0.0027MF	2%	100V
C512	1-130-960-00	FILM	0.01MF	2%	100V
C513	1-110-193-11	MYLAR	0.01MF	10%	160V
C514	1-123-373-00	ELECT	47MF	20%	63V
C515	1-107-310-00	MICA	220PF	5%	500V
C516	1-162-179-11	CERAMIC	0.1MF		50V
C517	1-107-310-00	MICA	220PF	5%	500V
C518	1-104-241-00	POLYSTYRENE	470PF	5%	500V
C556	1-131-450-00	TANTALUM	1MF	20%	50V
C557	1-131-450-00	TANTALUM	1MF	20%	50V
C601	1-162-294-31	CERAMIC	0.001MF	10%	50V
C602	1-162-294-31	CERAMIC	0.001MF	10%	50V
C651	1-136-157-00	FILM	0.022MF	5%	50V
C652	1-136-157-00	FILM	0.022MF	5%	50V
C653	1-136-157-00	FILM	0.022MF	5%	50V
C654	1-130-479-00	MYLAR	0.0047MF	5%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C655	1-130-479-00	MYLAR	0.0047MF	5%	50V
C802	1-162-211-31	CERAMIC	33PF	5%	50V
C803	1-162-211-31	CERAMIC	33PF	5%	50V
C804	1-162-284-31	CERAMIC	150PF	10%	50V
C805	1-162-284-31	CERAMIC	150PF	10%	50V
C810	1-162-179-11	CERAMIC	0.1MF		50V
C904 ⚠	1-124-939-11	ELECT	6800MF	20%	16V
C905 ⚠	1-124-939-11	ELECT	6800MF	20%	16V
C906	1-123-337-00	ELECT	1000MF	20%	25V
C910	1-136-165-00	FILM	0.1MF	5%	50V
C911	1-130-691-00	FILM	1MF	10%	125V
C912	1-123-335-00	ELECT	330MF	20%	25V
C913	1-123-346-00	ELECT	220MF	20%	35V
C914	1-123-360-00	ELECT	100MF	20%	50V
C915	1-123-380-00	ELECT	1MF	20%	50V
C916	1-123-318-00	ELECT	33MF	20%	16V
C917	1-123-380-00	ELECT	1MF	20%	50V
C918	1-123-343-00	ELECT	33MF	20%	25V
C920	1-123-842-00	ELECT	3300MF	20%	25V
C921	1-123-345-00	ELECT	100MF	20%	35V
C922	1-131-450-00	TANTALUM	1MF	20%	50V
C923	1-107-322-00	MICA	22PF	5%	500V
C924	1-123-624-00	ELECT	470MF	20%	120V
C925	1-123-380-00	ELECT	1MF	20%	50V
C926	1-123-343-00	ELECT	33MF	20%	25V
C930	1-123-842-00	ELECT	3300MF	20%	25V
C931	1-123-345-00	ELECT	100MF	20%	35V
C932	1-131-450-00	TANTALUM	1MF	20%	50V
C933	1-107-322-00	MICA	22PF	5%	500V
C934	1-123-624-00	ELECT	470MF	20%	120V
C935	1-123-380-00	ELECT	1MF	20%	50V
C936	1-123-343-00	ELECT	33MF	20%	25V
C955 ⚠	1-124-939-11	ELECT	6800MF	20%	16V
C956	1-123-337-00	ELECT	1000MF	20%	25V
C961	1-136-173-00	FILM	0.47MF	5%	50V
C962	1-123-307-00	ELECT	100MF	20%	10V
CNJ151*1-564-073-00	PIN, CONNECTOR				
CNJ200*1-564-495-11	PIN, CONNECTOR 2P				
CNJ201*1-564-507-11	PLUG, CONNECTOR 4P				
CNJ202*1-564-507-21	PLUG, CONNECTOR 4P				
CNJ301*1-564-505-21	PLUG, CONNECTOR 2P				
CNJ302*1-564-507-21	PLUG, CONNECTOR 4P				
CNJ303*1-564-511-11	PLUG, CONNECTOR 8P				
CNJ304*1-564-507-11	PLUG, CONNECTOR 4P				
CNJ306*1-564-507-31	(502ES2/620ES2)...PLUG, CONNECTOR 4P				
CNJ307*1-564-507-31	(502ES2/620ES2)...PLUG, CONNECTOR 4P				
CNJ308*1-564-508-11	PLUG, CONNECTOR 5P				
CNJ310*1-564-505-21	PLUG, CONNECTOR 2P				
CNJ311*1-564-509-11	PLUG, CONNECTOR 6P				
CNJ312*1-564-506-11	(552ESD2/650ESD2)...PLUG, CONNECTOR 3P				
CNJ313*1-564-342-11	PIN, CONNECTOR 8P				
CNJ314*1-564-505-41	(552ESD2/650ESD2)...PLUG, CONNECTOR 2P				
CNJ315*1-564-505-31	PLUG, CONNECTOR 2P				

ELECTRICAL PARTS

Ref.No.	Part No.	Description
CNJ316*1-564-505-31	PLUG, CONNECTOR 2P	
CNJ317*1-564-338-00	PIN, CONNECTOR 4P	
CNJ320*1-564-336-00	PIN, CONNECTOR 2P	
CNJ321*1-564-505-11	PLUG, CONNECTOR 2P	
CNJ401*1-564-505-21	PLUG, CONNECTOR 2P	
CNJ402*1-564-507-11	PLUG, CONNECTOR 4P	
CNJ403*1-564-507-11	PLUG, CONNECTOR 4P	
CNJ404*1-564-507-21	PLUG, CONNECTOR 4P	
CNJ406*1-564-519-11	PLUG, CONNECTOR 4P	
CNJ407*1-564-519-21	PLUG, CONNECTOR 4P	
CNJ408*1-564-506-11	PLUG, CONNECTOR 3P	
CNJ409*1-564-505-31	PLUG, CONNECTOR 2P	
CNJ410*1-564-507-11	PLUG, CONNECTOR 4P	
CNJ801*1-564-501-11	PIN, CONNECTOR 8P	
CNJ802*1-564-499-11	PIN, CONNECTOR 6P	
CNJ803*1-564-499-11	PIN, CONNECTOR 6P	
CNP309*1-560-064-11	PIN, CONNECTOR 6P	
CNP601*1-564-522-11	PLUG, CONNECTOR 7P	
CNP602*1-564-505-11	PLUG, CONNECTOR 2P	
CNP603*1-564-505-21	PLUG, CONNECTOR 2P	
CNP604*1-564-505-11	PLUG, CONNECTOR 2P	
CNP606*1-564-506-11	PLUG, CONNECTOR 3P	
CNP901*1-564-725-11	(502ES2/620ES2)...PIN, CONNECTOR 9P	
CP801	1-232-978-11	COMPOSITION CIRCUIT BLOCK
CP802	1-232-999-11	COMPOSITION CIRCUIT BLOCK
CP803	1-232-967-11	COMPOSITION CIRCUIT BLOCK
CP804	1-232-967-11	COMPOSITION CIRCUIT BLOCK
D51	8-719-901-33	DIODE 1SS133
D201	8-719-951-13	DIODE HZ5CLL
D202	8-719-911-19	DIODE 1SS119
D209	8-719-911-19	DIODE 1SS119
D299	8-719-911-19	DIODE 1SS119
D301	8-719-911-19	DIODE 1SS119
D302	8-719-902-79	DIODE KV1236Z
D350	8-719-200-02	DIODE 10E2
D400	8-719-942-31	DIODE HZ3ALL
D401	8-719-942-31	DIODE HZ3ALL
D402	8-719-910-24	DIODE HZ12B1L
D403	8-719-911-19	DIODE 1SS119
D404	8-719-911-19	DIODE 1SS119
D410	8-719-911-19	DIODE 1SS119
D651	8-719-200-02	DIODE 10E-2
D652	8-719-200-02	DIODE 10E-2
D653	8-719-200-02	DIODE 10E-2
D654	8-719-200-02	DIODE 10E-2
D801	8-719-900-28	DIODE EBG3432S
D802	8-719-934-34	DIODE AA3432S
D806	8-719-922-25	DIODE PG2222SY
D811	8-719-911-19	DIODE 1SS119
D812	8-719-911-19	DIODE 1SS119
D813	8-719-911-19	DIODE 1SS119
D814	8-719-911-19	DIODE 1SS119
D815	8-719-911-19	DIODE 1SS119
D816	8-719-911-19	DIODE 1SS119
D905 ⚠	8-719-200-31	DIODE 21DQ05
D906 ⚠	8-719-200-31	DIODE 21DQ05
D907 ⚠	8-719-200-31	DIODE 21DQ05

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ELECTRICAL PARTS

Ref.No.	Part No.	Description
D908 ⚠	8-719-200-31	DIODE 21DQ05
D911 ⚠	8-719-911-19	DIODE 1SS119
D912 ⚠	8-719-911-19	DIODE 1SS119
D941	8-719-200-68	DIODE C10P20FU
D942	8-719-224-12	DIODE 10YD2.4A
D943	8-719-902-87	DIODE EQB01-08Q
D951	8-719-200-69	DIODE C10P20FUR
D952	8-719-224-12	DIODE 10YD2.4A
D953	8-719-902-87	DIODE EQB01-08Q
D960	8-719-100-29	DIODE RD5.1EB1
D961	8-719-200-02	DIODE 10E2
D962	8-719-200-02	DIODE 10E2
D963	8-719-100-89	DIODE RD24EB1
D997	8-719-911-19	DIODE 1SS119
D998	8-719-911-19	DIODE 1SS119
F201 ⚠	1-532-699-11	(US,Canadian)...FUSE 1.6A 125V
FLD801	1-519-333-11	INDICATOR TUBE, FLUORESCENT
H151	8-719-800-31	DIODE THS103A-1
H152	8-719-800-31	DIODE THS103A-1
IC201	8-752-010-80	IC CX20108
IC202	8-759-700-58	IC NJM4558D-FA
IC203	8-759-300-71	IC HD14053BFP
IC303	8-759-925-63	IC MSM6404A-117GS-K
IC305	8-759-990-82	IC TL082CP
IC306	8-759-145-58	IC UPC4558C
IC307	8-759-912-52	IC CX23035
IC308	8-759-302-72	IC HM6116LFP-3
IC309	8-759-912-53	IC CX23034
IC310	8-752-322-30	(552ESD2/650ESD2)...IC CXD1075P
IC313	8-759-204-97	(552ESD2/650ESD2)...IC TC74HCU04F
IC315	8-759-204-97	IC TC74HCU04F
IC350	8-759-600-24	IC M54543L
IC400	8-759-923-89	IC PCM53KP-V-S
IC401	8-759-903-56	IC LF356H
IC402	8-759-900-72	IC NE5532P
IC403	8-759-900-72	IC NE5532P
IC404	8-759-900-72	IC NE5532P
IC405	8-719-939-06	IC MCL2601
IC450	8-759-923-94	IC CXD1058Q
IC451	8-759-801-74	IC CX20198
IC452	8-759-900-72	IC NE5532P
IC500	8-759-923-89	IC PCM53KP-V-S
IC501	8-759-903-56	IC LF356H
IC502	8-759-900-72	IC NE5532P
IC503	8-759-900-72	IC NE5532P
IC504	8-759-900-72	IC NE5532P
IC801	8-759-303-37	IC HD614042SC77
IC802	8-759-602-87	IC M50761-420P
IC803	8-741-131-70	IC BX-1317
IC901	8-759-700-51	IC NJM7805A
IC902	8-759-700-28	IC NJM7905A
IC903	8-759-708-05	IC NJM78L05A
IC910	8-759-170-12	IC UPC78M12H
IC911	8-759-700-20	IC NJM79M05A
IC912	8-759-700-18	IC NJM78M20A
IC920	8-759-700-24	IC NJM79M12A

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ELECTRICAL PARTS

Ref.No.	Part No.	Description
J400	1-507-909-21	JACK, PIN 4P
J401	1-507-863-21	JACK, LARGE TYPE (HEADPHONES)
J402	1-562-677-11	(502ES2/620ES2) ...SOCKET, CONNECTOR (SUB CORD)
L51	1-408-563-00	MICRO INDUCTOR 10UH
L201	1-421-340-00	(AEP/UK)...LINE FILTER
L201	1-421-580-00	(US).....LINE FILTER
L301	1-426-212-11	COIL (RF)
L302	1-408-117-00	MICRO INDUCTOR 10UH
L350	1-408-072-00	MICRO INDUCTOR 47UH
M53	1-422-197-14	COIL (DRIVE)
M651	X-4902-019-1	MOTOR ASSY, CHUCKING
M652	A-4608-303-A	MOTOR ASSY, LOADING
PT901 ⚠	1-448-021-11	(AEP,UK).....TRANSFORMER, POWER
PT901 ⚠	1-448-023-21	(E).....TRANSFORMER, POWER
PT901 ⚠	1-448-254-21	(US,Canadian)...TRANSFORMER, POWER
PS301 ⚠	1-532-685-00	LINK, IC
PS901 ⚠	1-532-679-00	LINK, IC
PS951 ⚠	1-532-679-00	LINK, IC
Q201	8-729-177-43	TRANSISTOR 2SD774
Q202	8-729-103-43	TRANSISTOR 2SB734
Q203	8-729-177-43	TRANSISTOR 2SD774
Q204	8-729-103-43	TRANSISTOR 2SB734
Q205	8-729-177-43	TRANSISTOR 2SD774
Q206	8-729-103-43	TRANSISTOR 2SB734
Q209	8-729-117-54	TRANSISTOR 2SA1175
Q210	8-729-100-12	TRANSISTOR 2SC2001-L
Q301	8-729-177-43	TRANSISTOR 2SD774
Q302	8-729-103-43	TRANSISTOR 2SB734
Q303	8-729-900-80	TRANSISTOR DTC114ES
Q304	8-729-900-80	TRANSISTOR DTC114ES
Q305	8-729-900-80	TRANSISTOR DTC114ES
Q306	8-729-900-80	(552ESD2/650ESD2)...TRANSISTOR DTC114ES
Q310	8-729-900-80	TRANSISTOR DTC114ES
Q312	8-729-117-54	TRANSISTOR 2SA1175
Q396	8-729-178-54	TRANSISTOR 2SC2785
Q397	8-729-900-61	TRANSISTOR DTA114ES
Q398	8-729-117-54	TRANSISTOR 2SA1175
Q399	8-729-178-54	TRANSISTOR 2SC2785
Q400	8-729-200-56	TRANSISTOR 2SK241-GR
Q401	8-729-200-55	TRANSISTOR 2SK241-Y
Q402	8-729-200-56	TRANSISTOR 2SK241-GR
Q410	8-729-178-54	TRANSISTOR 2SC2785
Q411	8-729-901-57	TRANSISTOR DTC143XS
Q500	8-729-200-56	TRANSISTOR 2SK241-GR
Q501	8-729-200-55	TRANSISTOR 2SK241-Y
Q502	8-729-200-56	TRANSISTOR 2SK241-GR
Q651	8-729-177-43	TRANSISTOR 2SD774
Q801	8-729-900-80	TRANSISTOR DTC114ES
Q802	8-729-900-80	TRANSISTOR DTC114ES
Q803	8-729-900-80	TRANSISTOR DTC114ES
Q804	8-729-900-80	TRANSISTOR DTC114ES
Q805	8-729-900-80	TRANSISTOR DTC114ES
Q806	8-729-900-80	TRANSISTOR DTC114ES
Q902	8-729-178-54	TRANSISTOR 2SC2785
Q903	8-729-178-54	TRANSISTOR 2SC2785
Q920	8-729-113-82	TRANSISTOR 2SA1138
Q921	8-729-167-62	TRANSISTOR 2SC2676
Q922	8-729-107-53	TRANSISTOR 2SC2275-A

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q923	8-729-167-62	TRANSISTOR 2SC2676			
Q930	8-729-167-62	TRANSISTOR 2SC2676			
Q931	8-729-113-82	TRANSISTOR 2SA1138			
Q932	8-729-118-53	TRANSISTOR 2SA985-P			
Q933	8-729-113-82	TRANSISTOR 2SA1138			
Q941	8-729-103-43	TRANSISTOR 2SB734			
R151	1-249-417-11	CARBON	1K	5%	1/6W
R152	1-249-417-11	CARBON	1K	5%	1/6W
R153	1-249-417-11	CARBON	1K	5%	1/6W
R154	1-249-417-11	CARBON	1K	5%	1/6W
R155	1-249-417-11	CARBON	1K	5%	1/6W
R156	1-249-417-11	CARBON	1K	5%	1/6W
R157	1-247-887-00	CARBON	220K	5%	1/6W
R158	1-247-887-00	CARBON	220K	5%	1/6W
R159	1-247-887-00	CARBON	220K	5%	1/6W
R160	1-247-887-00	CARBON	220K	5%	1/6W
R201	1-249-433-11	CARBON	22K	5%	1/6W
R202	1-247-851-00	CARBON	6.8K	5%	1/6W
R203	1-249-435-11	CARBON	33K	5%	1/6W
R204	1-249-425-11	CARBON	4.7K	5%	1/6W
R205	1-247-819-00	CARBON	330	5%	1/6W
R206	1-249-434-11	CARBON	27K	5%	1/6W
R207	1-249-405-11	CARBON	100	5%	1/6W
R208	1-247-851-00	CARBON	6.8K	5%	1/6W
R209	1-247-864-00	CARBON	24K	5%	1/6W
R210	1-247-851-00	CARBON	6.8K	5%	1/6W
R211	1-249-417-11	CARBON	1K	5%	1/6W
R212	1-247-859-00	CARBON	15K	5%	1/6W
R213	1-249-429-11	CARBON	10K	5%	1/6W
R214	1-249-420-11	CARBON	1.8K	5%	1/6W
R215	1-249-441-11	CARBON	100K	5%	1/6W
R216	1-247-369-00	CARBON	39K	5%	1/6W
R217	1-249-429-11	CARBON	10K	5%	1/6W
R218	1-247-903-00	CARBON	1M	5%	1/6W
R219	1-249-417-11	CARBON	1K	5%	1/6W
R220	1-249-405-11	CARBON	100	5%	1/6W
R221	1-249-433-11	CARBON	22K	5%	1/6W
R222	1-247-857-00	CARBON	12K	5%	1/6W
R223	1-249-422-11	CARBON	2.7K	5%	1/6W
R224	1-247-869-00	CARBON	39K	5%	1/6W
R225	1-249-423-11	CARBON	3.3K	5%	1/6W
R226	1-247-859-00	CARBON	15K	5%	1/6W
R227	1-247-845-00	CARBON	3.9K	5%	1/6W
R228	1-247-815-00	CARBON	220	5%	1/6W
R229	1-249-434-11	CARBON	27K	5%	1/6W
R230	1-249-435-11	CARBON	33K	5%	1/6W
R231	1-247-883-00	CARBON	150K	5%	1/6W
R232	1-247-899-00	CARBON	680K	5%	1/6W
R234	1-247-895-00	CARBON	470K	5%	1/6W
R236	1-249-429-11	CARBON	10K	5%	1/6W
R237	1-247-895-00	CARBON	470K	5%	1/6W
R242	1-249-429-11	CARBON	10K	5%	1/6W
R243	1-247-895-00	CARBON	470K	5%	1/6W
R244	1-247-859-00	CARBON	15K	5%	1/6W
R245	1-249-429-11	CARBON	10K	5%	1/6W
R246	1-249-417-11	CARBON	1K	5%	1/6W
R301	1-249-425-11	CARBON	4.7K	5%	1/6W
R302	1-249-422-11	CARBON	2.7K	5%	1/6W
R303	1-215-453-00	METAL	22K	1%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R304	1-215-453-00	METAL	22K	1%	1/6W
R305	1-247-851-00	CARBON	6.8K	5%	1/6W
R306	1-247-857-00	CARBON	12K	5%	1/6W
R307	1-249-435-11	CARBON	33K	5%	1/6W
R308	1-249-417-11	CARBON	1K	5%	1/6W
R309	1-249-441-11	CARBON	100K	5%	1/6W
R310	1-249-441-11	CARBON	100K	5%	1/6W
R311	1-249-441-11	CARBON	100K	5%	1/6W
R322	1-249-429-11	CARBON	10K	5%	1/6W
R324	1-249-429-11	CARBON	10K	5%	1/6W
R325	1-249-433-11	CARBON	22K	5%	1/6W
R330	1-247-903-00	CARBON	1M	5%	1/6W
R331	1-247-903-00	CARBON	1M	5%	1/6W
R332	1-249-429-11	CARBON	10K	5%	1/6W
R333	1-247-700-11	CARBON	100		1/4W
R334	1-249-429-11	CARBON	10K	5%	1/6W
R340	1-247-903-00	CARBON	1M	5%	1/6W
R341	1-249-417-11	CARBON	1K	5%	1/6W
R351	1-215-441-00	METAL	6.8K	1%	1/6W
R352	1-215-441-00	METAL	6.8K	1%	1/6W
R353	1-247-903-00	CARBON	1M	5%	1/6W
R354	1-247-856-00	CARBON	11K	5%	1/6W
R355	1-247-856-00	CARBON	11K	5%	1/6W
R357	1-249-433-11	CARBON	22K	5%	1/6W
R358	1-249-423-11	CARBON	3.3K	5%	1/6W
R359	1-247-869-00	CARBON	39K	5%	1/6W
R360	1-215-453-00	METAL	22K	1%	1/6W
R363	1-247-887-00	CARBON	220K	5%	1/6W
R367	1-215-449-00	METAL	15K	1%	1/6W
R368	1-249-433-11	CARBON	22K	5%	1/6W
R369	1-249-433-11	CARBON	22K	5%	1/6W
R380	1-249-417-11	(552ESD2/650ESD2)...CARBON 1K 5% 1/6W			
R381	1-249-417-11	(552ESD2/650ESD2)...CARBON 1K 5% 1/6W			
R393	1-249-405-11	CARBON	100	5%	1/6W
R394	1-247-857-00	CARBON	12K	5%	1/6W
R395	1-249-429-11	CARBON	10K	5%	1/6W
R396	1-249-441-11	CARBON	100K	5%	1/6W
R397	1-249-441-11	CARBON	100K	5%	1/6W
R398	1-249-429-11	CARBON	10K	5%	1/6W
R399	1-249-429-11	CARBON	10K	5%	1/6W
R400	1-249-833-11	CARBON	20K	1%	1/2W
R401	1-249-815-11	CARBON	3.6K	1%	1/2W
R402	1-249-850-11	CARBON	100K	1%	1/2W
R403	1-249-808-11	CARBON	1.8K	1%	1/2W
R404	1-247-145-00	CARBON	3.9K	1%	1/4W
R405	1-249-930-11	CARBON	2K	1%	1/4W
R406	1-249-928-11	CARBON	1.6K	1%	1/4W
R407	1-249-816-11	CARBON	3.9K	1%	1/2W
R408	1-247-144-00	CARBON	3.6K	1%	1/4W
R409	1-249-930-11	CARBON	2K	1%	1/4W
R410	1-249-930-11	CARBON	2K	1%	1/4W
R411	1-249-816-11	CARBON	3.9K	1%	1/2W
R412	1-247-145-00	CARBON	3.9K	1%	1/4W
R413	1-249-930-11	CARBON	2K	1%	1/4W
R414	1-249-928-11	CARBON	1.6K	1%	1/4W
R415	1-249-808-11	CARBON	1.8K	1%	1/2W
R416	1-249-844-11	CARBON	56K	1%	1/2W
R417	1-249-844-11	CARBON	56K	1%	1/2W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R418	1-249-808-11	CARBON	1.8K	1%	1/2W
R419	1-249-786-11	CARBON	220	1%	1/2W
R420	1-249-818-11	CARBON	4.7K	1%	1/2W
R421	1-247-725-11	CARBON	470K		1/4W
R422	1-247-739-11	CARBON	100		1/2W
R423	1-249-732-11	CARBON	300K		1/2W
R424	1-247-704-11	CARBON	220		1/4W
R430	1-249-497-11	CARBON	33K		1/4W
R431	1-249-586-11	CARBON	27K		1/4W
R432	1-247-721-11	CARBON	4.7K		1/4W
R433	1-249-590-11	CARBON	39K		1/4W
R434	1-247-700-11	CARBON	100		1/4W
R436	1-259-024-11	CARBON	910	1%	1/2W
R437	1-249-441-11	CARBON	100K	5%	1/6W
R441	1-249-429-11	CARBON	10K	5%	1/6W
R442	1-249-429-11	CARBON	10K	5%	1/6W
R443	1-247-700-11	CARBON	100		1/4W
R444	1-247-700-11	CARBON	100		1/4W
R445	1-247-845-00	CARBON	3.9K	5%	1/6W
R456	1-249-417-11	CARBON	1K	5%	1/6W
R457	1-247-823-00	CARBON	470	5%	1/6W
R500	1-249-833-11	CARBON	20K	1%	1/2W
R501	1-249-815-11	CARBON	3.6K	1%	1/2W
R502	1-249-850-11	CARBON	100K	1%	1/2W
R503	1-249-808-11	CARBON	1.8K	1%	1/2W
R504	1-247-145-00	CARBON	3.9K	1%	1/4W
R505	1-249-930-11	CARBON	2K	1%	1/4W
R506	1-249-928-11	CARBON	1.6K	1%	1/4W
R507	1-249-816-11	CARBON	3.9K	1%	1/2W
R508	1-247-144-00	CARBON	3.6K	1%	1/4W
R509	1-249-930-11	CARBON	2K	1%	1/4W
R510	1-249-930-11	CARBON	2K	1%	1/4W
R511	1-249-816-11	CARBON	3.9K	1%	1/2W
R512	1-247-145-00	CARBON	3.9K	1%	1/4W
R513	1-249-930-11	CARBON	2K	1%	1/4W
R514	1-249-928-11	CARBON	1.6K	1%	1/4W
R515	1-249-808-11	CARBON	1.8K	1%	1/2W
R516	1-249-844-11	CARBON	56K	1%	1/2W
R517	1-249-844-11	CARBON	56K	1%	1/2W
R518	1-249-808-11	CARBON	1.8K	1%	1/2W
R519	1-249-786-11	CARBON	220	1%	1/2W
R520	1-249-818-11	CARBON	4.7K	1%	1/2W
R521	1-247-725-11	CARBON	470K		1/4W
R522	1-247-739-11	CARBON	100		1/2W
R523	1-249-732-11	CARBON	300K		1/2W
R524	1-247-704-11	CARBON	220		1/4W
R530	1-249-497-11	CARBON	33K		1/4W
R531	1-249-586-11	CARBON	27K		1/4W
R532	1-247-721-11	CARBON	4.7K		1/4W
R533	1-249-590-11	CARBON	39K		1/4W
R534	1-247-700-11	CARBON	100		1/4W
R536	1-259-024-11	CARBON	910	1%	1/2W
R537	1-249-441-11	CARBON	100K	5%	1/6W
R601	1-247-881-00	CARBON	120K	5%	1/6W
R602	1-247-881-00	CARBON	120K	5%	1/6W
R603	1-247-885-00	CARBON	180K	5%	1/6W
R604	1-247-885-00	CARBON	180K	5%	1/6W
R605	1-247-815-00	CARBON	220	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R651	1-249-417-11	CARBON	1K	5%	1/6W
R652	1-249-417-11	CARBON	1K	5%	1/6W
R801	1-247-815-00	CARBON	220	5%	1/6W
R802	1-247-903-00	CARBON	1M	5%	1/6W
R803	1-247-903-00	CARBON	1M	5%	1/6W
R804	1-249-423-11	CARBON	3.3K	5%	1/6W
R805	1-249-433-11	CARBON	22K	5%	1/6W
R806	1-249-433-11	CARBON	22K	5%	1/6W
R807	1-249-433-11	CARBON	22K	5%	1/6W
R808	1-247-811-00	CARBON	150	5%	1/6W
R809	1-249-441-11	CARBON	100K	5%	1/6W
R900	1-249-661-11	CARBON	330		1/2W
R901	1-247-173-00	CARBON	56K		1/4W
R902	1-247-710-11	CARBON	560		1/4W
R903	1-247-719-11	CARBON	3.3K		1/4W
R904	1-259-024-11	CARBON	910	1%	1/2W
R905	1-259-023-11	CARBON	1.2K	1%	1/2W
R906 ⚠	1-212-976-00	FUSIBLE	56	5%	1/2W F
R908 ⚠	1-212-936-00	FUSIBLE	1.2	5%	1/2W F
R910	1-249-661-11	CARBON	330		1/2W
R911	1-247-173-00	CARBON	56K		1/4W
R912	1-247-710-11	CARBON	560		1/4W
R913	1-247-719-11	CARBON	3.3K		1/4W
R914	1-259-024-11	CARBON	910	1%	1/2W
R915	1-259-023-11	CARBON	1.2K	1%	1/2W
R916	1-249-643-11	CARBON	56		1/2W
R920 ⚠	1-212-966-00	FUSIBLE	22	5%	1/2W F
R921	1-249-419-11	CARBON	1.5K	5%	1/6W
R930 ⚠	1-212-936-00	FUSIBLE	1.2	5%	1/2W F
R931 ⚠	1-212-936-00	FUSIBLE	1.2	5%	1/2W F
R956 ⚠	1-212-976-00	FUSIBLE	56	5%	1/2W F
R958 ⚠	1-212-936-00	FUSIBLE	1.2	5%	1/2W F
R961	1-249-429-11	CARBON	10K	5%	1/6W
R962	1-249-435-11	CARBON	33K	5%	1/6W
R963	1-247-881-00	CARBON	120K	5%	1/6W
R964	1-249-429-11	CARBON	10K	5%	1/6W
R991 ⚠	1-217-383-00	FUSIBLE	4.7	5%	1/4W F

RV201	1-230-524-11	RES, ADJ, METAL GLAZE 22K
RV202	1-230-523-11	RES, ADJ, METAL GLAZE 10K
RV301	1-230-522-11	RES, ADJ, METAL GLAZE 4.7K
RV400	1-237-081-11	RES, VAR, CARBON 10K/10K (LINE OUT)
RV500	1-237-081-11	RES, VAR, CARBON 10K/10K (LINE OUT)
RY400	1-515-547-11	RELAY
RY401	1-515-547-11	RELAY
RY402	1-515-519-00	RELAY
S301	1-570-100-11	(552ESD2/650ESD2) ...SWITCH, SLIDE (DIGITAL OUT)
S302	1-554-421-00	SWITCH, SLIDE (TIMER)
S651	1-554-205-00	SWITCH, PUSH (LOAD IN DET)
S652	1-554-205-00	SWITCH, PUSH (LOAD OUT DET)
S653	1-553-636-00	SWITCH, MICRO (MOTOR SELECT)
S654	1-570-447-11	SWITCH, MICRO (CHUCKING)
S801	1-554-303-21	SWITCH, KEY BOARD (1)
S802	1-554-303-21	SWITCH, KEY BOARD (2)
S803	1-554-303-21	SWITCH, KEY BOARD (3)
S804	1-554-303-21	SWITCH, KEY BOARD (4)
S805	1-554-303-21	SWITCH, KEY BOARD (5)

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
S806	1-554-303-21	SWITCH, KEY BOARD (6)
S807	1-554-303-21	SWITCH, KEY BOARD (7)
S808	1-554-303-21	SWITCH, KEY BOARD (8)
S809	1-554-303-21	SWITCH, KEY BOARD (9)
S810	1-554-303-21	SWITCH, KEY BOARD (10)
S811	1-554-303-21	SWITCH, KEY BOARD (11)
S812	1-554-303-21	SWITCH, KEY BOARD (12)
S813	1-554-303-21	SWITCH, KEY BOARD (13)
S814	1-554-303-21	SWITCH, KEY BOARD (14)
S815	1-554-303-21	SWITCH, KEY BOARD (15)
S816	1-554-303-21	SWITCH, KEY BOARD (16)
S817	1-554-303-21	SWITCH, KEY BOARD (17)
S818	1-554-303-21	SWITCH, KEY BOARD (18)
S819	1-554-303-21	SWITCH, KEY BOARD (19)
S820	1-554-303-21	SWITCH, KEY BOARD (20)
S821	1-554-303-21	SWITCH, KEY BOARD (+10)
S823	1-554-303-21	SWITCH, KEY BOARD (0)
S825	1-554-303-21	SWITCH, KEY BOARD (CLEAR)
S827	1-570-101-61	SWITCH, KEY BOARD (PROGRAM)(WITH LED)
S829	1-554-303-21	SWITCH, KEY BOARD (CHECK)
S830	1-554-303-21	SWITCH, KEY BOARD (▶)
S831	1-554-303-21	SWITCH, KEY BOARD (❚❚)
S832	1-554-303-21	SWITCH, KEY BOARD (■)
S833	1-570-101-71	SWITCH, KEY BOARD (CONTINUE)(WITH LED)
S834	1-570-101-21	SWITCH, KEY BOARD (SINGLE)(WITH LED)
S836	1-554-303-21	SWITCH, KEY BOARD (|◀◀)
S837	1-554-303-21	SWITCH, KEY BOARD (▶▶|)
S838	1-554-303-21	SWITCH, KEY BOARD (—)
S839	1-554-303-21	SWITCH, KEY BOARD (—)
S840	1-554-303-21	SWITCH, KEY BOARD (◀◀)
S841	1-554-303-21	(KEY BOARD SW BOARD) ...SWITCH, KEY BOARD(▶▶)
S841	1-554-303-21	(DISPLAY BOARD) ...SWITCH, KEY BOARD (REPEAT)
S842	1-554-303-21	SWITCH, KEY BOARD (CLEAR A<->B)
S843	1-554-303-21	SWITCH, KEY BOARD (TIME)
S844	1-554-303-21	SWITCH, KEY BOARD (AUTO DELAY)
S845	1-554-303-21	SWITCH, KEY BOARD (SHUFFLE PLAY)
S846	1-554-303-21	SWITCH, KEY BOARD (OPEN/CLOSE)
S990	⚠1-553-318-00	SWITCH, PUSH (POWER)
SE51	1-422-198-11	COIL (SENSOR)
X301	1-567-539-11	VIBRATOR, CRYSTAL, 16.9344MHz
X302	1-567-170-00	OSCILLATOR, CERAMIC, 4.194MHz
X801	1-567-192-11	OSCILLATOR, CERAMIC, 4MHz
X802	1-527-532-31	OSCILLATOR, CERAMIC, 400KHz
VS901	⚠1-552-963-00	(E)...SWITCH, POWER VOLATGE SELECT

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-463-681-11	REMOTE COMMANDER (RM-D502)
1-526-565-00	(E)....AC PLUG ADAPTOR
1-558-271-11	CORD, CONNECTION
3-536-825-00	(E).....BAG, PROTECTING
3-701-630-00	BAG, POLYETHYLENE
3-703-390-01	(US)....INSTRUCTION
*3-795-629-11	(AEP)...INSTRUCTION
3-760-857-11	(552ESD2)....MANUAL, INSTRUCTION
3-760-857-21	(650ESD2)....MANUAL, INSTRUCTION
3-760-857-31	(650ESD2:Canadian)...MANUAL, INSTRUCTION
3-760-857-41	(552ESD2:AEP).....MANUAL, INSTRUCTION
3-765-122-11	(502ES2)....MANUAL, INSTRUCTION
3-765-122-21	(620ES2)....MANUAL, INSTRUCTION
3-765-122-31	(620ES2:Canadian)...MANUAL, INSTRUCTION
3-765-122-41	(502ES2:AEP).....MANUAL, INSTRUCTION
4-908-441-01	CUSHION (RIGHT), UPPER
4-908-442-01	CUSHION (LEFT), UPPER
4-908-443-01	CUSHION, LOWER
4-908-602-01	HOLDER, COMMANDER
4-908-970-01	SPACER
4-908-994-31	(552ESD2).....INDIVIDUAL CARTON
4-908-994-41	(650ESD2:US).....INDIVIDUAL CARTON
4-908-994-51	(650ESD2:Canadian)...INDIVIDUAL CARTON
4-908-994-61	(502ES2).....INDIVIDUAL CARTON
4-908-994-71	(620ES2:US).....INDIVIDUAL CARTON
4-908-994-81	(620ES2:Canadian)....INDIVIDUAL CARTON

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

TROUBLE CHECKS

The following checks will assist in the correction of most problems which you may encounter with your unit.
Should any problem persist after you have made these checks, consult your nearest Sony service facility.
Before going through the check list below, first refer back to the connection and operating procedures.

Play does not begin
- The ❚❚ PAUSE button is engaged.
- Moisture condensation (see page 5).
- The disc is inserted with the labeled surface downwards.
- The disc is incorrectly inserted.

No audio from one or both channels.
- Incorrect connections.

Play begins as soon as the POWER switch is turned on.
- The TIMER switch is set at PLAY.

The sound volume is too low.
- The VARIABLE LINE OUT jack is used.

9-952-457-11

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